DOCTOR OF PHILOSOPHY

Dividend policy and the stock market reaction to dividend announcements in Pakistan

Khan, Naimat Ullah

Award date:
2011

DOCTOR OF PHILOSOPHY

Dividend policy and the stock market reaction to dividend announcements in Pakistan

Naimat Ullah Khan

2011

University of Dundee

DIVIDEND POLICY AND THE STOCK MARKET REACTION TO DIVIDEND ANNOUNCEMENTS IN PAKISTAN

NAIMAT ULLAH KHAN

A THESIS SUBMITTED TO THE UNIVERSITY OF DUNDEE IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY, NOVEMBER 2011.

To my beloved *'BABA'* (father) and *'ADDE'* (mother)

Whose prayers are a springboard for my success in this world

and will do so in the hereafter *INSHALLAH*

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGEMENTS

Praise be upon the Almighty ALLAH who bestowed me the bounty to get my higher education. I am indebted to my supervisors, Dr. Bruce M. Burton and Professor David M. Power, for their patience, commitment, guidance and friendly encouragement throughout the preparation of the thesis; without their support, it would not have been possible for me to complete the dissertation on time. I gained a lot of 'new' knowledge under their supervision.

My greatest thanks are owed to my beloved parents whose prayers acted as a springboard for my success in this world and will do so in the hereafter.

I am thankful to the Higher Education Commission of Pakistan, in general, and the University of Peshawar Pakistan, in particular, for funding my PhD. My profound thanks to those individuals and organisations that directly or indirectly assisted me during the data collection process, especially to the individuals interviewed for this research.

I give thanks for the prayers of my brothers (Sibghat, Hidayat, Irfan, Hashmat, Zia and Shaker), sisters, sisters-in-law, cousins and relatives throughout my academic career. I record my gratitude to my ex-colleagues at Bannu University for their well wishes. My profound thanks are also for the support of my PhD-colleagues and the staff members at School of Business, University of Dundee.

And last but not the least, a very special thanks to the 'love' of my friends – Naveed Sardar, Haroon, Safeer, Gulfam, Tanveer, Niaz, Jahanzeb khan, Dr. Atta, Dr. Sana, Noman, Haseeb, Habib, Shah Hussain, Haji Shabib, Alam, Zafar, Zahid, Viyani and Zubair – they really gave me mental refreshment throughout the duration of my PhD.

DECLARATION

I hereby declare that I am the author of this thesis; that the work of which this thesis is a record has been done by me, and that it has not previously been accepted for a higher degree.

Signed:_____ **Date:**_____
Naimat U. Khan

CERTIFICATE

We certify that **Naimat U. Khan** has worked the equivalent of six semesters on this research, and that the conditions of the relevant ordinance and regulations have been fulfilled.

Signed:_____ **Date:**_____
Professor David Power

_____ **Date:**_____
Dr. Bruce Burton

ABSTRACT

Dividends are payments made to the shareholders (owners) out of firms' earnings. Numerous academics, adopting either a behavioural or empirical approach, have provided rationales to address the issue of why companies pay dividends and whether the market response to the announcements can be predicted. However, these endeavours have failed to achieve unanimity on either issue. Moreover, most of these studies have been conducted in countries with developed markets; relatively little research has been conducted in the emerging stock markets of (Southern) Asia, such as Pakistan. This thesis tries to fill the gap in the literature by investigating both the impact of dividend announcements on the share prices of Pakistani firms and the behavioural determinants of dividend policy. The Pakistani market was characterised by a unique tax system, with capital gains totally exempted from taxation before June 2010. This unique feature provides an additional motivation for the researcher to explore the reasons why Pakistani firms pay dividends despite the tax penalty associated with such disbursements.

For the purposes of the research, a mixed-methods approach was employed involving, firstly, an event study to calculate any unexpected share returns around dividend announcements for a sample of 639 dividend events across 202 firms listed on the Karachi Stock Exchange (KSE) over the period 2005-09. Secondly, interviews were conducted with 23 company executives to ascertain their views about the determinants of dividend policy and its perceived impact on share prices. To gain an alternative – investor – perspective on the signalling impact of dividends, 16 financial analysts were also interviewed.

The results of the event study indicate that dividend announcements do not convey information about Pakistani firms to the stock market; insignificant unexpected returns are documented for the announcement date. Nonetheless, the disaggregated results of the event study showed significant unexpected returns for the dividend increase and no-change sub-groups – usually before the actual dividend announcement date. However, consistent with results for developed countries with diverse shareholdings, this research suggests that earnings are the dominant signal in Pakistan, in the context of an interaction effect where earnings and dividends signals re-enforce each other.

The results of the interviews indicated that Pakistani executives primarily base their dividend decisions on earnings, followed by liquidity. However, Pakistani firms do not appear have target payout ratios or employ a constant speed-of-adjustment to decide on payout levels. Indeed, most of the firms indicated that they decided the current payout ratio on an *ad hoc* basis. More importantly, both sets of interviewees (company officials and financial analysts) believed in the signalling effect, where dividends were sometimes used by investors as a signal of future earnings.

CHAPTER 1

INTRODUCTION

1.1 Introduction

The dividend decision is one of the most extensively researched topics in the finance area. Academics have been conducting research on dividends for many decades; however, the conclusions of this research effort can be summarised by the views of Fisher Black when he stated that "the harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together" (Black, 1976, p. 5). Academics have formulated various theories and empirical explanations as to how and why a firm pays a dividend, even where dividends are taxed more heavily than capital gains. Many of these studies have been conducted in countries with developed stock markets such as the US (Lintner, 1956; Pettit, 1972), the UK (Lonie et al., 1996; Dhanani, 2005) and in Ireland (McCluskey et al., 2006). However, little work had been done in emerging market countries such as Pakistan. The current thesis seeks to redress this imbalance. The idiosyncratic tax regime in Pakistan, where capital gains were free of income tax until June 2010, make the country a particularly pertinent research environment for investigating the motivations behind firms' dividend policies. This study therefore provides a useful contribution to the finance literature since it facilitates an investigation of why Pakistani firms pay dividends despite the clear tax disadvantages associated with such disbursements. In addition, the unique social and political circumstances in which Pakistani firms operate make an examination of dividend decisions an interesting topic for investigation.

This thesis analyses the impact of dividend announcements on the share prices of firms listed on the Karachi Stock Exchange (KSE). Academics from developed stock markets have put forward various theories regarding the extent to which dividends affect the value of the firm. In addressing this question, opinions can generally be divided into three groups. First, a number of financial researchers claim that dividend policy has no impact on firm value, leading to the hypothesis that dividends are irrelevant (Miller and Modigliani, 1961;

Black and Scholes, 1974; Miller and Scholes, 1982; Uddin, 2003; Kaleem and Salahuddin, 2006). The dividend irrelevance hypothesis was advanced by Miller and Modigliani (MM) in their seminal study in 1961. This hypothesis argues that investors are unconcerned as to whether they receive the firm's earnings in the form of dividends or capital gains. Therefore, a change in dividend does not affect the firm's value. Any increase in dividend is offset by a capital loss as firms raise the cash for the changed payout by an issue of shares. The dividend irrelevancy theory proposes, therefore, that the real value of a firm is influenced only by its investment opportunities and profitability and not by its dividend policy:

> "Values are determined solely by "real" considerations –…the earning power of the firm's assets and its investment policy – and not by how the fruits of the earnings power are "packaged" for distribution (MM, p. 414).

Second, another group of researchers argue that a rise in dividend payout increases the value of a company because dividends convey information to investors about the future prospects of the firm (e.g. Pettit, 1972; Lonie et al., 1996; McCluskey et al., 2006). The 'information content' hypothesis[1] suggests that in a world of information asymmetry, where managers know more than outsiders about the current operations and future plans of their company, a change in dividend may signal the beliefs of these insiders and affect the value of a firm (Bhattacharya, 1979; Bhattacharya, 1980). The information content hypothesis assumes that an increase in dividends is "good news" while a dividend cut is a "bad signal" about the future earnings of the company. This assumption draws on the seminal work of Lintner (1956) who documented that firms tended to increase their dividends only when they were reasonably certain that the new higher payout rate could be maintained into the future. This implies that an increase in dividend is a favourable signal about higher future earnings which in turn affects share prices. A number of behavioural studies have supported the signalling notion (e.g. Baker et al., 1985; Baker and Powell, 1999; Brav et al., 2005;

[1] The phrase "market signal" or "signalling" are often used in the literature as substitute terms for "the information content of dividend announcements" employed in the original study by Lintner (1956).

McCluskey et al., 2007). In addition, many studies have provided quantitative empirical evidence to support the signalling thesis hypothesis that dividend announcements affect the share prices of a firm; see, for example, Pettit (1972) in the US, Lonie et al. (1996) in the UK and McCluskey et al. (2006) in Ireland.[2]

In contrast to the "standard" information content hypothesis, some academics have advanced an alternative theory whereby a dividend increase (decrease) may be a bad (good) signal; an increase in the payout to investors may indicate that a firm has no profitable investments to undertake while a dividend cut may indicate that a firm is retaining cash to fund growth opportunities (Woolridge and Ghosh, 1985; Soter et al., 1996). Supporters of this view have documented that although a dividend cut initially has a negative impact on share prices, once investors are educated about the reasons for the cut share prices rebound sharply. Therefore, according to this view of dividends, the motives behind a cut need to be ascertained in order to determine the true nature of the signal.

Third, several researchers have highlighted that the taxation system can have an impact on investor response to the dividend decision. In particular, if the tax on dividends is higher than the tax on capital gains (Litzenberger and Ramaswamy, 1979; Litzenberger and Ramaswamy, 1982; Poterba and Summers, 1984; Lasfer, 1995; Bell and Jenkinson, 2002; Brealey et al., 2008) then a high (and rising) payout may be viewed negatively by those investors who will have larger tax liabilities.

The evidence in academic studies of the share price reaction to dividend announcements in Pakistan is mixed. Some researchers have documented that announcements of a dividend increase are viewed as a positive signal by market participants (Nishat, 1992;

[2] In many countries (such as the UK, Ireland and Pakistan), dividend and earnings news is announced to the market at the same time. Analysing the impact of a dividend announcement without considering any confounding earnings signal may therefore lead to conflicting results. Studies of this interaction effect have been conducted by Kane et al. (1984) in the US; Easton (1991) for the Australian market; Lonie et al. (1996) for the UK and McCluskey et al. (2006) for Ireland. All of these studies have found a statistically significant interaction or corroborative effect between dividends and earnings announcements.

Kanwer, 2002; Zaman, 2007) while others have reported negative stock market reactions to news that a company's dividends are to rise (Mubarik, 2008; Akbar and Baig, 2010).[3] These conflicting findings may be due to the small samples employed in the analyses; alternatively, the inconsistency in results may reflect the fact that the studies were conducted at different time periods, when economic and other circumstances varied considerably. The current investigation therefore examines this issue using a large sample over a relatively long time period to help resolve the debate which has taken place within the literature relating to dividend announcements in Pakistan.

Besides the signalling impact of dividends, various theoretical frameworks have been advanced to explain how firms decide upon their dividend payout ratios in different markets. These frameworks recognise that dividend policies change depending upon the financial regulations and economic policies of a country (Glen et al., 1995; Frankfurter et al., 2004). In his seminal work in the area, Lintner (1956) documented US firms base their current dividend on current earnings and prior year's dividend. Using Lintner's model of dividend policy as a benchmark, several researchers have tried to suggest alternative frameworks. For example, Darling (1957) put forwarded a model of dividend policy where two extra variables (current investment and the usage of external funds) were added to Lintner's model to adapt it for the UK. According to Darling's hypothesis, dividends were a function of current investment needs and the availability of external financing, along with the current year's earnings and previous year's dividend. In line with this view, Brittain (1966) documented that cash flow was the most influential factor in the dividend decision-making process. Brittain's (1966) model of dividend policy included a cash flow measure and a lagged dividend payout ratio as explanatory variables. Using US data, Fama and Babiak (1968) found that the inclusion of a lagged earnings value also improved the explanatory power of Lintner's model. Despite these

[3] A minority of researchers have reported findings which support MM's irrelevance proportion (e.g. Kaleem and Salahuddin, 2006).

minor alterations, many studies have shown that Lintner's model continues to perform well in explaining the dividend behaviour of firms from different counties (Baker et al., 1985; Baker and Powell, 1999; Kanwer, 2002; Brav et al., 2005; Naeem and Nasr, 2007; Ahmed and Javid, 2009;). Indeed, a number of studies suggest that the model may be able to explain the dividend decisions of Pakistani firms (e.g. Nishat and Bilgrami, 1994). However, much of this analysis has relied on the empirical testing of Lintner's model using a time series of aggregated dividend data. The current thesis investigates this issue instead by directly ascertaining the views of those directly involved in setting a company's dividend using the interview method.

1.2 Motivations

There were a number of motivations for the decision to study dividend decisions in Pakistan. First, a review of the literature showed that the information content of dividends had been comprehensively studied in developed stock markets around the world such as the US, the UK, Australia and Ireland. However, relatively little work had been undertaken in emerging markets;[4] this was especially true for Pakistan. Therefore, it was felt that a comprehensive investigation of the impact of dividend announcements on the share prices of Pakistani-listed firms would make an important contribution to knowledge. By basing the analysis on data for a large sample of companies, the evidence should build on the findings from the small sample studies previously conducted in Pakistan.

Second, the literature on Pakistan revealed that prior studies had only used statistical analyses to ascertain the determinants of dividend policy and its relationship with share prices. Therefore, it was decided here to combine a behavioural approach along with a

[4] A few notable exceptions to this generalisation are: Al-Kuwari (2009) for the GCC countries; Al-Najjar (2011) for Jordan; Adaoglu (2000) for Turkey; Mollah et al. (2002) for Bangladesh; Thirumalvalavan and Sunitha (2006) for India; Da Silva and Leal (2003) for Brazil; and Naeem and Nasr(2007) for Pakistan.

statistical analysis to the research topic being investigated; the use of this mixed-methods approach is intended to bring robustness to the research findings. In addition, it was believed that perceptions about dividend policy and its impact on share prices would best contribute to our understanding in the area; in addition, the perspectives of two major groups of stakeholders – company executives and financial analysts (investors) – were sought, to add "flesh to the bones" of previous findings that had been documented.

A third motivation for the research was to ascertain why Pakistani firms paid dividends despite the fact that capital gains were completely exempted from taxation before June 2010. The evidence in Chapter 2 shows that, on average, 40.0% of profitable Pakistani companies paid dividends over the period 2005-09. The existence of such a large percentage of dividend paying firms, despite the tax disadvantage of cash disbursements to investors, invites detailed investigation. This dividend decision can have important liquidity implications for the companies concerned and can also have macro-economic implications in terms of boosting the spending power of investors as well as affecting the tax revenues of the government. Yet very little is known about the decision processes which Pakistani boards of directors go through when setting their firm's dividend level. Therefore, it seemed to the researcher that any results arrived at would be studied with interest by government ministries, capital market regulatory authorities and companies themselves.

1.3 Research Objectives and Methods Employed

As discussed in the previous section, the present study investigates the impact of dividend announcements on share prices in the emerging stock market of Pakistan. In addition, it considers the perceptions of company officials about the determinants of dividend policy and its potential role as a market signal. When examining the signalling potential of dividend announcements, the perceptions of the financial analysts/investors were considered

alongside the views of company executives. Therefore, the thesis has three main objectives: (i) to investigate whether dividend announcements convey price-sensitive information to investors; (ii) to ascertain whether any signal relating to dividend news exists on its own or instead interacts with earnings announcements; and (iii) to determine the views of Pakistani executives and financial analysts (investors) about firms' dividend policies and market signals.

In order to achieve the objectives, both quantitative and qualitative methods are employed. First, a conventional event study is employed to examine share returns around dividend announcement dates. Two types of unexpected returns are estimated over a 21-day event window. Excess returns are calculated based on changes in the market index while abnormal returns are computed using the market model. The sample consists of 639 dividend announcements for 202 firms over the period 2005-09. Excess and abnormal returns are computed for all the events as well as for three sub-groups of dividend change news: dividend-increase, dividend-decrease and dividend-no-change disclosures. In Pakistan, dividends and earnings announcements are made to the market at same time; therefore, any interaction between the two disclosures is studied to see which of the items of information has the greatest influence on share prices. This interaction analysis enables the researcher to examine whether any stock market response is related to the complex interaction between dividends and earnings news. To examine the interaction effect between the two signals, average excess and abnormal returns were calculated for the nine groups constructed on the basis of the change in a firm's dividends and earnings details. Regression analysis, designed to allow any interaction effects to be clearly identified, was then employed to see whether dividends or earnings announcements dominated the share price response to the news. Finally, interviews were conducted with 23 company officials and 16 financial analysts about the determinants of dividend policy and the potential signalling effect of dividend

announcements in Pakistan. Specifically, company executives were asked about the determinants of dividend policy, the existence of a target payout ratio and the ability of dividend announcements to signal information to outside stakeholders. Perceptions of financial analysts were also sought about the information content of dividends to obtain an investor perspective.

1.4 Structure of the Thesis

The reminder of the thesis is organised as follows. Chapter 2 highlights the development of the Pakistani economy – especially the financial system – since the country's independence in 1947; however, emphasis is placed on the recent time frame (2005-09) since this was the period focused on in most of the current thesis. In addition, the political system, legal system and geo-political position of Pakistan are all discussed briefly in order to inform the reader about the environment in which Pakistani firms make their dividend decisions. A detailed analysis is provided of various organisations responsible for the operation of the financial system within the country, such as the State Bank of Pakistan (SBP), the Securities and Exchange Commission of Pakistan (SECP) and the stock exchanges. In addition, a major portion of the chapter discusses the development of the largest stock exchange in Pakistan – the KSE; the sample of companies analysed in this thesis are drawn from those listed on the KSE. The aim of these sections of Chapter 2 is to educate the reader about the regulations affecting the listing behaviour of firms and the dividend decision processes of Pakistani companies. The chapter concludes by highlighting the resilience of the Pakistani economy in the face of the major crises experienced over the past 60 years.

The relevant literature is reviewed in Chapter 3; this review emphasises the signalling impact of dividend policy and the determinants of payout levels. The chapter discusses the previous studies in the area from three broad perspectives. First, the discussion covers various

aspects of dividend policy in developed stock markets; as many of the seminal studies were conducted in these markets an outline of their findings should provide a backcloth against which the Pakistani results of the current thesis can be compared. The second part of the literature review discusses dividends in emerging stock markets – especially those in the South Asian region; while the final section of the literature review focuses on the findings of previous studies of dividend policy and signalling in Pakistan itself. The chapter starts with a discussion of the dividend irrelevancy hypothesis proposed by MM (1961) and contrasts the predictions of this theory with early investigations of the dividend-paying behaviour of companies which suggested that payout decisions followed thoughtful deliberations within firms. The chapter also highlights the various factors that have been shown to affect dividend decision processes such as ex-date effects, clientele effects and valuation effects. The rest of the literature review details evidence of the signalling potential of dividends in both developed and emerging markets (especially the South Asian markets including Pakistan).

The specific methodology and methods underpinning the research in this thesis are outlined in Chapter 4. The chapter starts with a discussion of Burrell and Morgan's (1979) basic assumptions about social science research and society. Based on these assumptions, the four paradigms proposed by Burrell and Morgan (interpretive, functionalist, radical humanist and radical strutcturalist) are discussed in detail. Because of the research questions addressed in this thesis, it is argued that the research lies at the interpretive end of the functionalist paradigm. This reflects the study's employment of both qualitative and quantitative methods to study share price behaviour around the dividend announcements of the firms listed on the KSE. On the one hand, a quantitative event study is undertaken to calculate unexpected share returns around dividend announcements. On the other hand, interviews are conducted with company executives and financial analysts about the determinants of dividend policy and the role of dividends as a market signal. The chapter discusses these two methods in detail.

Chapter 5 reports the findings of the event study. Detailed information about the thesis hypotheses being tested and the sample selection used are provided. The results of the excess and abnormal returns are tabulated over a 21-day event-period. Moreover, the excess and abnormal return findings for each dividend change group (dividend-increase; dividend-decrease and dividend-no-change) are discussed in detail. The interaction effect between dividends and earnings are also considered within the chapter along with a graphical representation of the cumulative excess and abnormal returns over the event-period. The findings of a regression model are discussed in detail to ascertain the interaction effect of dividend and earnings signals.

Chapter 6 supplies information about the interviews with financial analysts and the executives of firms listed on the KSE. Perceptions about the determinants of dividend policy and views on the role of dividends as a signal are discussed. The purpose of these interviews is to help to interpret the results from the event study method as well as to document the opinions of key stakeholders in the dividend process. The chapter outlines the findings of company officials about the factors which affect their firms' dividend policies with special emphasis on the target payout ratio. In addition, views were solicited about the impact of dividend announcements on share prices in the Pakistani market; these findings are considered alongside the investors' views of dividend policy in order to compare both set of opinions.

Finally, Chapter 7 concludes the thesis. The chapter details the main findings and discusses the contributions of the research; their implications are examined in detail. The chapter concludes with a discussion of the limitations of the study along with the identification of possible future research areas on this topic.

1.5 Conclusion

The current chapter has set the scene for the remainder of this thesis. It has provided a platform to guide the reader and an understanding of why this research was conducted. In particular, it has highlighted that the research questions studied in this thesis focus on (i) the factors which influence the decision of the Pakistani firms to pay dividends and (ii) whether the KSE responds to dividend announcements as important signals about firm values.

CHAPTER 2

THE PAKISTANI ECONOMY

2.1 Introduction

This chapter outlines the historical background and political development of Pakistan, and provides details about the economy since the country's independence in 1947. In particular, the chapter focuses on the development of the Pakistani financial system; in this regard, different government policies are examined to see how they affected the listing of companies on the stock exchanges and the regulations concerning dividend policy. In addition, the institutions which are responsible for the operation of the financial system are considered in detail. The sample data for the research has been taken from the KSE; therefore, a detailed discussion of this exchange is contained within the chapter. This information will provide a background for understating the research in the current thesis.

The remainder of the chapter is organised as follows. Section 2.2 outlines background information about Pakistan including details about the political system, legal system and geo-political situation existing within the country. Section 2.3 provides details about the Pakistani economy including the regulations which affect the listing behaviour of companies and dividend policy decisions in Pakistan. Section 2.4 includes information about the different institutions and organisations which regulate the national financial system; namely: the SBP; the SECP and the stock exchanges themselves. As the thesis focuses on share price data from the KSE, Section 2.5 provides more detailed information about the KSE. Finally Section 2.6 concludes the chapter.

2.2 Background Information about Pakistan

The Islamic Republic of Pakistan came into existence on 14th August, 1947 having been part of British Empire prior to that date. The territory of Azad (free) Kashmir was annexed by Pakistan as a result of the Indo-Pakistani war of 1947-48. Initially, Pakistan consisted of two provinces – West Pakistan (currently Pakistan) and East Pakistan (now re-

named Bangladesh) – separated by 1,600 miles of Indian Territory (Blood, 1994). In the beginning, Karachi was the capital city of Pakistan; later, in 1962, the capital was shifted to Islamabad.

Immediately after Pakistan's independence, on 30th September 1949, the country became a member of the United Nations. Pakistan also joined a number of other organisations such as: the Economic Cooperation Organisation (ECO), the Association of South East Asian Nations (ASEAN), the South Asia Free Trade Area (SAFTA), the World Intellectual Property Organisation (WIPO) and the World Trade Organisation (WTO).

Upon independence, it retained Anglo-Saxon (Common) law as the cornerstone of its legal system while recognising the Islamic character of the state (Ibrahim, 2005). Immediately after independence, the first Constitutional Assembly was established to frame the constitution of Pakistan. Meanwhile, Pakistan was governed under the Government of India Act, 1935 with some amendments. The Constitution Assembly passed the "Objective Resolution" in March 1949 which became the foundation of Pakistan's constitution;[5] its preamble explained the ideology of Pakistan thus:

> "Whereas sovereignty over the entire universe belongs to Allah Almighty [God] alone, He has delegated authority to the State of Pakistan; through its people to be exercised within the limits prescribed by Him is a sacred trust."

Therefore, Islam was declared to be the way of life in Pakistan. After this resolution, it took nine years to frame the nation's first constitution in 1956 (Mahmood, 2002). This 1956 constitution also included the 'repugnancy clause' which stated that no law should be implemented which was against Islamic principles. For this purpose, the federal *Shairat* court and Islamic ideological council played a vital role in "Islamising" the laws of Pakistan (Akhtar, 1989; Mehmood, 2002). The second constitution was promulgated in 1962 and continued to operate until the separation of Pakistan and Bangladesh in 1971. In 1973, a third

[5] http://www.pakistani.org/pakistan/constitution/annex_objres.html

constitution was adopted which continues to operate to the current day. According to this 1973 constitution, the state religion is Islam although other faiths are guaranteed the freedom to practice their own beliefs.[6]

In Pakistan, the last census was conducted in 1998; after this year several plans were developed for a fresh count of the population but these did not happen for political and other reasons. According to the census of 1998, the total area of Pakistan is 796,096 square kilometers and the population was about 133 million (it is now estimated to be close to 170 million).[7] The census also showed that 96.3% of the population were Muslims, 1.6% Hindus, 1.6% Christians and 0.5% other minorities. The national language of Pakistan is Urdu; however, the official language of business is predominantly English.

The political system of Pakistan is based on a democratically elected federal parliament. Under this parliamentary system of politics, the President is the Head of the State and the Prime Minister is the Head of the Government. The Prime Minister is elected by the National Assembly while the Head of the State (the President) is elected by the Senate, the National Assembly and four provincial assemblies. The Government of Pakistan has executive power while the parliament exercises legislative power. Both the national and provincial assemblies are elected for a period of five years; however, only one assembly (2003-08) has ever completed its full term. This is because the democratic system in Pakistan has been unstable; it has been subverted by military dictators for 33 of the 63 years of Pakistan's existence. Therefore, military dictators have ruled the country for longer than the democratic governments (Chandio, 2006). Pakistan is a federation of four provinces (Punjab, Sindh, Khyber Pakhtunkhwa and Baluchistan); two territories (Gilgit-Baltistan and the

[6] It is worth mentioning that despite the emphasis on *Shariah* various governments failed to implement this approach fully especially with regard to the economic system (Mahmood, 2002); in fact, the Pakistani economy is still based on interest-based banking. *Shariah* is the divine law of Islam based on the revelations of Holy Quran and practices/teachings of Muhammad (P.B.U.H).

[7] This is a projected and rough estimate of the population provided by the Federal Bureau of Statistics (FBS) of Pakistan at the end of 2009.

Federally Administrative Tribal Areas, FATA); and the Capital territory of Islamabad. Each of the four provinces is governed by a provincial assembly which elects the Chief Minister of the province.

Pakistan is located in the North-Western part of the South Asian subcontinent. It has a coastline along the Arabian Sea and the Gulf of Oman in the South, and is bordered by Afghanistan and Iran in the West, India in the East and China in the far North East. Pakistan has two seaports: Karachi, which is fully operational and Gawadar, is currently under construction. The country has an important geo-political position in the region as the gateway to Afghanistan and other states of Central Asia. For example, Pakistan and China are linked via the Karakorum Highway which is the main route for transporting goods between the two countries (Blood, 1994; Chandio, 2006).

Figure 2.1 Map of Pakistan

Source: www.about.com

The Pakistani territory consists of both plains and mountainous areas. On one side, there are a series of high mountains including the world's second highest mountain K-2. Indeed, the Northern Areas (Gilgit-Baltistan) of Pakistan have five of the world's 17 highest mountains. The other side is characterised by fertile lands and one of the most efficient canal systems in the world (Blood, 1994). The fiscal year in Pakistan runs from July 1st to June 30th of the following year. The currency is the Pakistani Rupee (PKR or Rs.) which consists of 100 Paisas. The main exports of Pakistan are rice, sports goods, leather goods, chemicals, textiles (yarn, garments, cotton cloth and bed linen) and carpets as well as rugs. The major exporting countries (and their share of Pakistan's total exports) are: the United States (16.0%); the United Arab Emirates (11.7%); Afghanistan (8.6%); the United Kingdom (4.5%) and China (4.2%) (World Fact Book, 2008). The major commodities imported are machinery, plastic, petroleum, transportation equipment, petroleum products, tea, edible oils, paper and paperboard as well as iron and steel. The major countries from which goods are imported are: China (14.1%); Saudi Arabia (12.0%); the United Arab Emirates (11.2%); Kuwait (5.4%); India (4.8%), the United States (4.7%) and Malaysia (4.1%) (World Fact Book, 2008).

Since its independence, Pakistan has had a turbulent relationship with its neighbour India. The main causes of this are the Kashmir issue and disagreement over water rights; many of the rivers that flow through Pakistan originate in India or Indian-controlled Kashmir (Jha, 1996). For these reasons, three wars have already been fought between the two countries. The first war started just after independence in 1947-48 and resulted in the annexing of one part of Kashmir (Azad Kashmir). The second war began in 1965 while the third war started in 1971; as a result of this last war, Bangladesh separated from Pakistan. The ongoing confrontation between Pakistan and India has impacted on the country; a sizeable

part of the Pakistani government's budget is spent on defence[8] (Chandio, 2006). This defence expenditure has often pushed the country to the verge of default.

2.3 The Background to the Pakistani Economy

After the death of the founder of Pakistan, Muhammad Ali Jinnah, on September 11, 1948, the country experienced a period of turbulence (Shahab, 1986). On the one hand, there was the war with India over the Kashmir issue in 1947-48; on the other hand, a lot of Muslims migrated from India after independence and these refugees needed assistance. There were very few industries in Pakistan at that time and by the early 1950s, the Pakistani economy was stagnating. At the same time, the country was facing a great deal of political instability.

Pakistan was predominantly an agricultural country at independence but gradually it became oriented towards services and industries based on its competencies in a diverse number of areas (Hussain and Qasim, 1997). In the 1950s, Pakistan produced about 75.0% of the world's jute not having a single jute mill at that time (Rasheed, 2008). Therefore, new industries were established to service the local demand; as a result of this policy, large scale manufacturing in Pakistan grew at the rate of 23.6% over the period 1949-1954 (Rasheed, 2008). This rapid growth in industrialisation contrasted with a decline in agriculture. Agriculture's share of GDP (Gross Domestic Product) fell from 53.0% in 1950 to 25.0% in 1993 while the industrial sector's share of GDP increased from 8.0% to 21.7% over the same period (Blood, 1994). According to the Federal Bureau of Statistics of Pakistan, by 2009-10 agriculture only contributed to 21.5% of GDP with the industrial (25.2%) and the services sectors (53.3%) now much more important.[9] Therefore, from its agricultural beginnings at the

[8] According to ex-Prime Minister Benazir Bhutto, "In Pakistan, $4.5 billion is spent on the military each year. This is an astounding 1,400 percent more than is spent on education." (Bhutto, 2008, p. 286)

[9] In 1958, the government set up a Land Reform Commission to redistribute land from a small number of landlords to the ordinary people of Pakistan. Under the Land Reform Commission, there was a ceiling of 200

time of independence, Pakistan has become a semi-industrialised economy. However, agriculture remains important; Pakistan stands fifth among Muslim countries and 20th in the world in farm output. Indeed, Pakistan is the fifth largest milk producer in the world (Lukman, 2010).

Pakistan initiated the process of economic transformation by formulating and implementing long-term plans. The first Five-Year Plan (1955-60) was launched to streamline the economy. Both GDP and GNI (Gross National Income) growth was 3.0% during the time of the first plan.[10] However, this plan was not fully implemented due to the political instability which existed in the country; in 1958, martial law was imposed in the country and the new government established the Planning Commission of Pakistan to streamline future attempts at economic development. The second Five-Year Plan (1960-65) saw the government encourage private entrepreneurship with assistance from the US.[11] Table 2.1 shows that GDP increased to $5.8 billion in 1965 compared to $3.7 billion in 1960. Moreover, GDP per capita also improved to $111.9 from $80.8 over the same period.[12] The third Five-Year Plan (1965-70) produced only modest growth (see Table 2.1) due to the Indo-Pakistani war in 1965 and the political instability which followed (Rasheed, 2008). In 1970, the fourth Five-Year Plan (1970-75) was started; however, it did not achieve its stated aims due to the Indo-Pakistani War of 1971 which resulted in the separation of East Pakistan (Bangladesh) from West Pakistan. In addition, this period saw the country devastated by the floods of 1973, 1976 and 1977 (Rasheed, 2008). Unsurprisingly, inspection of Table 2.1 reveals that there was only a nominal increase in GDP (from $10.0 to $11.3) with a decrease in GDP per capita from $165.4 in 1970 to $159.6 in 1975. This period also witnessed a very

---

hectares of irrigated land and 400 hectares of un-irrigated land for a single holding. As a result, four million hectares of land was released for public acquisition over the period 1959-69. This land reform shifted the agricultural sector from large to medium-sized holdings.

[10] Federal Bureau of Statistics, Pakistan.

[11] At this time, there was a huge inflow of foreign aid especially from the US which increased from 2.5% of GNP in 1955 to 7% of GNP in 1965 (Rasheed, 2008).

[12] Table 2.1 also highlights a rise in inflation from 1.5% to 5.5% during the second Five-Year Plan.

high inflation rate – it grew to 20.9% in 1975 from 5.3% in 1970. Not surprisingly, Table 2.1 also shows that the population fell during the fourth Five-Year Plan, primarily because of the formation of Bangladesh.

The Indo-Pakistani war of 1971 and separation of Bangladesh from Pakistan adversely affected the economy. The government (implementing its socialist manifesto) took several steps to overcome this problem (Chandio, 2006). For example, in September 1972 all the educational institutions were nationalised. The nationalisation process also witnessed the takeover of all domestic and private banks by the State in June 1974 while all cotton ginning, rice-husking and flour milling firms were taken over by the government in August 1976 (Hussain and Qasim, 1997). Because of the nationalisation programme, private investment declined and the public sector's share of total investment increased to 75.0% in 1977 – a rise of 15 times (Rasheed, 2008). Table 2.1 shows that FDI (Foreign Direct Investment) was $23.0 million and $30.0 million for the years 1970 and 1975 respectively.

On the 5th July 1988 a third period of martial law was imposed by General Zia-ul-Haq; it continued until 17th August 1988. During this era, both the Fifth (1978-83) and Sixth (1983-88) Five-Year plans were initiated; the plans achieved their target GDP growth rates of 6.6% and 6.2% respectively (Rasheed, 2008). The main reasons why these target growth rates were achieved included (i) remittances by expatriate Pakistani workers especially from the Gulf; and (ii) huge foreign aid payments from the US as Pakistan played a strategic role in the Afghan war with the Soviet Union (Chandio, 2008). During this time frame, private sector investment was encouraged and many of the state-owned industries were denationalised; as a result, the private sector share of investment rose from 51.0% in 1983 to 83.0% in 1988 (Rasheed, 2008). Table 2.1 highlights the jump in FDI to $63.6 million in 1980 from $30.0 million in 1975; it subsequently grew to $245.2 million in 1990. The inflation rate also fell in the 1980s compared to the 1970s. Moreover, in the national budget

for 1985-86, dividend income was exempted from tax to encourage private sector investment (Hussain and Qasim, 1997).[13] Since the late 1980s, all economic indicators had improved at a steady rate (see Table 2.1). As noted by Husain (2005)[14] Pakistan achieved an average growth rate of 5.0% while the poverty rate declined from 40.0% to 18.0% during this period.[15]

After the military dictator died in an air crash during 1988 (Blood, 1994), democratic elections took place and the resulting government ran the country; democratically-elected politicians continued in power until 12th October 1999. During this era, the Seventh (1988-93) and the Eighth (1993-98) Five-Year Plans were enacted; however, neither achieved their desired result due to political instability,[16] corruption,[17] conflict with India (Husain, 2008), ethnic clashes in Karachi (Hussain and Qasim, 1997) and unforeseen exogenous shocks (like nuclear testing in May 1998); all contributed to on-going instability (Rennak, 2001). Table 2.1 illustrates that inflation during this era was especially high, peaking at 12.3% in 1995. Growth in exports was high and imports represented a lower percentage of GDP; thus, the balance of trade position improved although the country remained a net importer of goods and services. This growth in exports was fuelled to some extent by FDI which increased to $722.6 million in 1995 compared to $245.2 million in 1990, reflecting the liberalisation

[13] According to the Income Tax Ordinance of Pakistan 2001, the tax on cash dividend is 10.0% (Section 5) while there is no taxation on share dividends. Up until June 2010, there was no taxation on capital gains; however, from July 2010 and onward, capital gains are taxable (Section 37A). The rate of tax to be paid for the tax year 2010 is 10.0% on securities traded for less than six months and 7.5% for securities traded for more than six months and less than one year. There is still no taxation on capital gains of securities traded for more than one year.

[14] The author was the Governor of State Bank of Pakistan over the period 1999-2005.

[15] At this time, interest-free banking was promoted in Pakistan for the first time under a policy where the economy was Islamised.

[16] This period was characterised by political instability as four different elections were held. During this era, four governments were established as a result of general elections in the country. The first three elections took place due to the dismissal of governments by the elected president on charges of corruption, nepotism and mismanagement. The last dismissal of a government was orchestrated by the military dictatorship in October, 1999.

[17] According to Transparency International (TI), the ranking of Pakistan on the basis of the Corruption Perception Index (CPI) is as follows: 3 for 1995, 2 for 1996, 5 for 1997, 14 for 1998, 12 for 1999, 12 for 2000, 12 for 2001, 26 for 2002, 38 for 2003, 15 for 2004, 14 for 2005, 16 for 2006, 41 for 2007, 45 for 2008 and 40 for 2009. This index goes from a low of 2 to a high of 45 where a low number implies the greater degree of corruption.

Table: 2.1 Economic Indicators for the Pakistani Economy over the period 1950-2005

Year	GDP ($ Billion)	GDP per Capita ($)	Inflation (%)	Import as % GDP	Export as % GDP	FDI ($) Million	Population (Million)	Interest Rate (%)
1950	N/A	N/A	N/A	N/A	N/A	N/A	74.6	3.0
1955	N/A	N/A	N/A	N/A	N/A	N/A	83.5	3.0
1960	3.7	80.8	1.5	N/A	N/A	N/A	92.7	4.0
1965	5.8	111.9	5.5	12.0	8.0	N/A	102.8	5.0
1970	10.02	165.4	5.3	14.6	7.7	23.0	114.1	5.0
1975	11.3	159.6	20.9	22.3	10.8	30.0	70.9	9.0
1980	23.7	286.7	11.9	24.1	12.4	63.6	82.5	10.0
1985	31.1	328.5	5.6	22.8	10.4	131.3	96.1	10.0
1990	40.01	370.5	9.05	23.3	15.5	245.2	112.0	10.0
1995	60.63	495.4	12.3	19.4	16.9	722.6	130.2	17.0
2000	73.9	535.5	4.36	14.7	13.4	308.0	144.3	13.0
2005	109.6	703.5	9.06	19.5	15.6	2,201.0	158.0	9.0

Note: Interest Rate and Population data is taken from International Financial Statistics. The data for the remaining variables was taken from the World Economic Indicators of World Bank. GDP is the Gross Domestic Product; Inflation is the change in the Consumer Price Index; FDI is Foreign Direct Investment and Interest Rate is the Bank Rate (discount rate) at the end of the period.

policies being implemented. Thus, the overall performance of the economy was strong during the mid-1990s despite interest rates hitting 17.0%. Although interest rates declined to 13.0% by 2000, FDI dropped by more than 50.0% while imports and exports fell as a percentage of GDP. As a result, the economic outlook deteriorated.

The beginning of the current century witnessed the return to power of a military dictator, General Pervez Musharaf, who dismissed the elected government on 12th October 1999 and assumed power with the help of the army; his military dictatorship continued until the 18th of August 2008.[18] He immediately set about trying to restore the fortunes of the economy. To this end, in 1999-2000, a "Seven-Point Agenda" was published which aimed to "revive the economy and restore investor confidence" (Husain, 2008, p. 2). With the launch of this agenda several reforms were introduced to streamline the operation of the economy.[19] During this reform era, the fundamentals of the economy improved, possibly due to the changes that were introduced as well as sizable remittances from the expatriate Pakistani community[20] and foreign aid especially from the US (Siddiqui, 2006).

Table 2.2 indicates that from 2000, the Pakistani economy witnessed a recovery as GDP growth reached 4.2% in that year. However, the years 2001 and 2002 saw GDP growth decline to 1.9% and 3.2% respectively. The decreasing trend may partly reflect the 9/11

[18] In this era, two general elections took place to restore 'democracy'. The first election took place in 2004 and second in 2008. The military dictator resigned the presidency on 18th August 2008 under pressure of impeachment from the elected government (www.guardian.co.uk/world/2008/aug/07/pakistan1).

[19] The reforms included a restructuring of the country's debts from the International Monetary Fund (IMF), the World Bank and the Asian Development Bank (ADB). A National Accountability Bureau (NAB) was established to tackle corruption. Less-profitable government organisations were privatised while trade policy was liberalised in order to align Pakistan's laws with the requirements of the WTO membership. Tax reforms including a universal self assessment scheme were introduced and foreign investors were encouraged to do business in Pakistan. Financial sector reforms also commenced including a proposal to make the central bank independent; online banking was launched, and private ownership encouraged in the banking sector. The Microfinance Ordinance (2001) was enacted and established the State Bank of Pakistan Banking Services Corporation (SBPBSC) acting as a subsidiary of the SBP. A Code of Corporate Governance was adopted in 2002 and the policies of the SECP were strengthened. A Fiscal Responsibility Law was promulgated to put a cap on borrowing (Under Fiscal Responsibility Law, the Debt to GDP ratio cannot exceed 60.0%). In addition, other reforms included the boosting of the information technology industry since 2000; civil service reforms; judicial reforms; police reforms; a reshaping of the higher education commission of Pakistan and the establishment of regulatory authorities including OGRA (Oil and Gas Regularity Authority), PEMRA (Pakistan Electronic Media Regularity Authority) etc. (Husain, 2005, 2008, 2009 and 2010)

[20] Since 2000, the remittances from expatriate Pakistanis were double the American's aid (Husain, 2008).

attack on the US as it affected the whole world economy (Khan, 2007). On the other hand, events of that day have been argued as having a positive impact on the economy of Pakistan (Rasheed, 2008). For example, economic sanctions which were imposed by the international community, since the nuclear tests of May 1998 and the military coup in October 1999, were removed. Bilateral external loans were restructured, worker remittances increased, FDI grew and access to international capital markets has re-established. Table 2.2 highlights that the economy grew by a sizable amount over the years 2003-07 – especially in 2005 when GDP increased by 7.6%. Moreover, FDI as a percentage of GDP increased during the period peaking at 3.9% in 2007. This year saw FDI rise to its highest level of $1,276.0 million.

However, the war on terror ultimately affected the economy of Pakistan in an adverse way: there was a deep sense of insecurity in the country as thousands of soldiers and civilians lost their lives in bombings, insurance premia increased, exports of goods declined and foreign businessmen as well as tourists refrained from visiting Pakistan (Khan, 2007; Husain, 2008). Visual inspection of Table 2.2 reveals that the economy also experienced a high rate of inflation over the period 2003-07 peaking at 9.0% in 2005. Despite the on-going conflict, all three sectors of the economy – manufacturing, service and agriculture – continued to outperform (Chandio, 2006). As a result, the World Bank in its report "Doing Business" (2006) highlighted reform in Pakistan (as cited in Ahmed and Javid, 2009, p. 150), stating that:

> "Pakistan was the top reformer in the region and the number 10 reformer globally – making it easier to start a business, reducing the cost to register property, increasing penalties for violating corporate governance rules, and replacing a requirement to license every shipment with two-year duration licenses for traders."

During the Musharaf regime (1999-2007), the economy experienced a tremendous growth in all fundamentals as measured by GDP (World Bank Indicators, 2010)[21] although a

[21] From 1999 to 2007, Per Capita Income grew by 100% – to become $925; Foreign Reserves grew by 500% – to become $17 billion; Pakistan's economy grew by 100% – to become $160 billion; Revenue grew by 100% –

number of serious economic problems persisted: high inflation; growing income inequality; food insecurity; energy shortages; dissatisfaction with the privatisation of state-owned enterprises; and nepotism in appointments to key positions (Siddiqui, 2006; Khan, 2007; Husain, 2008). Because of the growth in GDP, the rise in FDI and the increase in foreign portfolio investment (FPI), Husain (2008) labelled this time period as a "Golden era" in the economic development of Pakistan. However, many people attributed the high growth to US aid for Pakistan in return for supporting the war on terror (Rasheed, 2008); for example, Khan (2007) referred to the rapid economic growth as reflecting a "bubble economy" which focused only on economic indicators without considering social and sustainable development. Husain (2008)[22] disagreed with this view noting that:

> "Even if we assume the extreme case that all the official transfers, debt relief and all foreign loans/credits represent the "gift" of September 11 to Pakistan, this combined amount represents only 10% of total foreign exchange earnings of the Country in [2006]. At its peak in [2002], the amount of flows from foreign assistance was 21.6%...."[T]his perception that everything good that has happened to the country is a direct consequence of September 11 is not only incorrect but highly exaggerated." (pp. 16-17).

After the general election in February 2008, President Musharaf's grip on power slackened and a new democratic government took control of the economy. During the fiscal year 2008, the economy slowed and the major economic fundamentals declined. Table 2.2 highlights the declining trend in most economic variables. For example, growth in GDP decreased to 1.9% in 2008 compared to 5.6% in 2007 while inflation rose to 20.2% from 7.5% for the same period. Moreover, the gap between imports and exports widened to reach 10.9% of GDP. Husain (2008) suggests that the reasons for these changes included a

---

to become $11.4 billion; Exports grew by 100% – to become $18.5 billion; Textile exports grew by 100% – to become $11.2 billion; Karachi Stock Exchange grew by 500% – to become $75 billion; Foreign Direct Investment grew by 500% – to become $8.4 billion; Literacy ratio grew by 10% – to become 54%; Public development Funds grew by 100% – to become Rs.520 billion; Annual Debt servicing decreased by 35% – to become 26%; Poverty decreased by 10% – to become 24%; Foreign Earning Capacity increased from $15 billion to $46 billion (World Development Indicators 2010 by World Bank).

[22] According to Husain (2008), in 2006-07, the annual value of all forms of US assistance was only 7.2% of the total budgetary expenditure; indeed, it was only 4.5% of the total foreign exchange receipts, only 6.4% of total imports, and only 5.8% of the total current account receipts.

Table: 2.2 The Pakistani Economic Indicators over the period 2000-09

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
GDP ($ Billion)	73.9	72.3	72.3	83.2	97.9	109.6	127.5	143.2	165.1	166.5
GDP Growth %	4.2	1.9	3.2	4.8	7.3	7.6	6.1	5.6	1.9	3.7
GDP Per Capita ($)	535.5	511.2	499.0	560.8	644.3	703.5	801.1	880.7	994.3	981.3
GDP per Capita %	1.7	-0.4	0.7	2.3	4.8	5.1	3.9	3.4	-0.1	1.5
Inflation Rate	4.3	3.1	3.2	2.9	7.4	9.0	7.9	7.5	20.2	13.6
FDI ($ Million)	308.0	383.0	823.0	534.0	1118.0	2201.0	4273.0	5590.0	5438.0	2387.0
FDI % of GDP	0.4	0.5	1.1	0.6	1.1	2.0	3.3	3.9	3.3	1.4
FPI ($ Million)	35.0	-130.0	79.0	-26.0	49.0	451.0	1,152.0	1,276.0	-270.0	---------
Imports % of GDP	14.6	15.7	15.3	16.1	14.6	19.5	23.2	21.3	23.7	23.9
Exports % of GDP	13.4	14.6	15.2	16.7	15.6	15.6	15.2	14.1	12.8	14.1
Stock Traded % of GDP	44.5	17.2	35.9	80.0	75.3	128.6	99.2	70.1	32.9	14.1

Note: The data has been extracted from World Development Indicators of World Bank. GDP shows the Gross Domestic Product; GDP per Capita % shows the annual percentage growth; Inflation Rate is consumer price index; FDI is the Foreign Direct Investment; FPI is the Foreign Portfolio Investment; Imports and Exports include Goods and Services and Stock Traded shows the total value.

slowdown in foreign remittances, the abandonment of the privatisation process, the assassination of ex-Prime Minister Benazir Bhutto and military operations in the North-West region of Pakistan against the Taliban. In general, the deteriorating economic legacy from the previous government including a high inflation rate together with law and order problems as well as power shortages meant that the economic outlook within Pakistan was poor (Husain, 2008). In 2009, the Pakistani economy recovered somewhat; Table 2.2 shows an improving trend in economic performance compared to 2008. In addition, the CIA World Fact Book (2010) supports the view that the outlook for the economy was less bleak; in 2009, Pakistan was ranked 27th on the basis of per capita income at $2,600, an unemployment rate of 15.2%, 24.0% of the population below the poverty line and an inflation rate of 14.2%. According to the "Doing Business" (2010), out of a total of 183 countries, Pakistan was ranked 85th on the basis of ease of doing business, 63rd on the basis of starting a business and was 27th in terms of protecting investor rights and property.

In conclusion, Husain (2009) summarised the different decades since the inception of Pakistan as: "The Flat Fifties (1947-1958); The Golden Sixties (1958-1969); The Socialist Seventies (1971-1977); The Revivalist Eighties (1977-1988); The Muddling Nineties (1988-1999); [and] The Reforming Hundreds (1999-2007)." (p. 2)

2.4 Establishment of Key Economic Organisations

2.4.1 The State Bank of Pakistan

Before 1947, the Reserve Bank of India operated as the central bank of the whole country including what is now Pakistan. After the independence of Pakistan in 1947, 30.0% of the bank's assets were allotted to Pakistan. Muhammad Ali Jinnah, the founder of Pakistan, was aware of the importance of a sound financial system for the country. Among

his more important priorities was the establishment of a central bank to pave the way for the economic development of the country. As a result, the Central Bank was established through the State Bank of Pakistan Order 1948 and commenced operations in July 1, 1948. On the occasion of the opening ceremony of the State Bank of Pakistan on July 1st 1948, the founder, Quaid-i-Azam Muhammad Ali Jinnah, stated:[23]

> "The opening of the State Bank of Pakistan symbolises the sovereignty of our State in the financial sphere and...I need hardly dilate on the important role that the State Bank will have to play in regulating the economic life of our country. The monetary policy of the bank will have a direct bearing on our trade and commerce, both inside Pakistan as well as with the outside world and it is only to be desired that your policy should encourage maximum production and a free flow of trade.... The policy of the Pakistan Government is to stabilise prices at a level that would be fair to the producer, as well as the consumer."

The head office of the bank was located in the financial capital of Karachi, with three regional branches also being opened: one each in the capitals of the other three provinces – Lahore, Peshawar and Quetta. The head of the State Bank is the governor, nominated by the President of Pakistan for a period of three years. The role of the State Bank increased after the State Bank of Pakistan Act (1956) which charged the bank with regulating the financial system of the country. On January 1, 1974 its remit increased further when all the nation's banks were taken into State ownership following the enactment of the Banks Nationalization Act 1974. In February 1994, Parliament amended the State Bank of Pakistan Act (1956) which declared that the State Bank was the sole body responsible for shaping the monetary policy of the country. Its functions became more authoritative (and autonomous) after a further amendment of the State Bank of Pakistan Act (1956) on January 21st 1997 which saw credit policy come under the remit of the SBP.[24] By law, the SBP must submit a quarterly

[23] The quotation is taken from the official website of the SBP (www.sbp.org.pk).

[24] Other amendments were enacted in the Banks Nationalization Act (1974) and the Banking Companies Ordinance (1962). After these amendments, the SBP became the sole agency for supervising and regulating the activities of nationalised commercial banks; the Pakistan Banking Council which had performed these roles was abolished.

report to Parliament about the state of the economy especially on matters such as growth, credit, money supply and the balance of payments.

The SBP performs both the traditional and non-traditional functions of a central bank (Arby, 2004). The traditional functions of the SBP include primary activities such as the issue of notes, supervision and regulation of the financial system as well as acting as the lender of last resort. It is also the banker to the government and determines both credit as well as monetary policy. In addition, it must manage public debt, foreign exchange reserves, advise the government on policy matters and maintain close relationships with international financial institutions such as the IMF and the World Bank (Arby, 2004;SBP, 2011).

Besides these traditional functions, the SBP also performs some non-traditional or promotional activities which include the development of the commercial banking system, microfinance institutions, development financial institutions (DFIs) and Islamic banking. It also trains bankers, gives subsidised credit, implements the government's policy concerning the Islamisation of the banking system and overseas the development of the capital market in the country.

The SBP issued a circular in 2005 to increase the Minimum Capital Requirements (MCR) and Capital Adequacy Ratio of banks.[25] Because of these regulations, merger and acquisition activity in the banking industry grew (Akhtar, 2007). Moreover, the regulations also affected the internal policies of the firms, especially their dividend decision-making. Banks began to declare more share dividends instead of cash dividends in order to increase their paid-up capital.[26] The tendency towards share dividends also increased as a result of new liquidity requirements in the banks such that sufficient funds would exist to pay cheques drawn by accountholders.

[25] The State Bank of Pakistan (SBP) has directed local and foreign banks to increase their paid-up capital to the meet Minimum Capital Requirement (MCR). The MCR limitis as follows: Rs. 5 billion for 2008, Rs. 6 billion in 2009, Rs. 10 billion in 2010, Rs. 15 billion in 2011, Rs. 19 billion in 2012, Rs. 23 billion in 2013 (www.sbp.gov.pk).

[26] These were found during interviews with the company officials regarding dividend policy.

2.4.2 The Securities and Exchange Commission of Pakistan

After Pakistan became independent in 1947, companies were managed according to the Companies Act of 1917, which had been promulgated throughout the British Empire. Subsequently, the Securities and Exchange Ordinance (1969) (Ordinance Number: XVII of 1969) was enacted on the 28th June 1969, which sought "to provide for the protection of investors, regulation of markets and dealings in securities."

In 1981, the Ministry of Finance established the Corporate Law Authority (CLA) to regulate the corporate sector and capital market of Pakistan. In this regard the Companies Ordinance 1984 (XLVII OF 1984) was enacted to regulate the corporate sector of Pakistan. The preamble of this legislation indicated that the main purpose of the ordinance was: "to consolidate and amend the law relating to companies and certain other associations." (p. 1) The CLA, being a government department under the umbrella of the Ministry of Finance, did not have administrative and financial autonomy in major decisions relating to the financial sector. However, the scope of its remit widened throughout the decade of the 1990s as the financial sector grew in size.

The restructuring of the CLA started in 1997 under the Capital Market Development Plan of the Asian Development Bank. As a result, the Securities and Exchange Commission of Pakistan Act 1997 was promulgated on December 26, 1997 and the SECP (the Commission) started operations on January 1, 2009. As a result, the CLA was replaced by the SECP – an autonomous body – to regulate the corporate sector, the capital market and the financial (non-banking) sectors of the Pakistan. The head office of the SECP is located in the federal capital, Islamabad; moreover, it has eight regional registration offices including Karachi, Lahore, Peshawar, Quetta, Multan, Faisalabad and Sukkar. The head officer of the SECP is a Chairman appointed by the Ministry of Finance.

The services of the SECP include: registration of companies including non-banking financial institutions; regulation of the acquisition, merger and take-over of companies; enforcement and monitoring of the implementation of corporate laws; regulating the insurance sector; the winding-up of companies; development of stock exchanges; regulating the issue of securities; registering and regulating the functions of stock brokers, share transfer agents, portfolio managers or anyone associated with the security market; protection and education of the market about malpractices; audit of the stock exchanges and reviewing corporate laws (SECP, 2011). In order to perform these functions, the operations of the SECP are divided among different divisions: company law; specialised companies; securities market; finance and administration; human resources and training; insurance; and information systems and technology division.

The SECP has played a pivotal role in developing a code of corporate governance in March 2002 (Mir and Nishat, 2004). Moreover, the SECP has established the Pakistan Institute of Corporate Governance (PICG) to educate stakeholders about governance reforms within the corporate sector (Shaheen and Nishat, 2005; PICG, 2011). According to Kemal et al. (2002), these activities of the SECP have resulted in an "improvement in the corporate governance of listed companies considerably." (p. 14)

The SECP is also the body in charge of modifications to Company Ordinances. For example, it introduced Companies Ordinance 1984 which outlined statutory requirements about dividend disbursements in Pakistan. According to Section 249 of the Ordinance, "No dividend shall be paid by a company otherwise than out of the profits of the company." Section 248 states that: "The Company in general meeting may declare dividends; but no dividend shall exceed the amount recommended by the directors." Regarding the payment of dividends, Section 251 of the Company Ordinance notes that "…the chief executive of the company shall be responsible to make the payment…within forty-five days from the date of

declaration of the dividend". In practice, dividend policy is decided upon at a Board of Directors (BoD) meeting subject to the approval of the Annual General Meeting (AGM).[27] The BoD decides upon the dividend per share (not the total amount of dividend) as directed by law.[28] In addition, "listed companies shall inform the public, in the manner specified by the Commission, as soon as possible of inside information which directly concerns the listed companies."[29]Any person who is found guilty of insider trading is "liable to fine, which may extent to ten million rupees or three times the amount of gain made or loss avoided by such person, or loss suffered by another person, whichever amount is higher."[30] In continuation of this "where such person is an executive officer, director, auditor, advisor, consultant of a listed company, be removed from such office by an order of the Commission and debarred from the auditing any listed company for a period of three year; or may, where such person is registered as a broker or agent, be liable to cancellation of registration".[31]

2.4.3 Stock Exchanges

In 1934, prior to the independence of Pakistan, the city of Lahore established a stock exchange – the Lahore Stock Exchange. In 1936, this stock exchange merged with the Punjab Stock Exchange Limited. At that time, the city of Lahore had three locations where securities traded: the Punjab Share and Stock Brokers Association Limited; the Lahore Central Exchange Limited and the All-India Stock Exchange Limited (Mirza, 1993). Following independence in 1947, none of these stock exchanges survived; two closed while the All-India Stock exchange migrated to Delhi – the capital city of India. After the creation of Pakistan, Karachi became the hub of business activities due to the fact that it was the Capital

[27] Companies Ordinance 1984, Section 248.
[28] The dividend announcements are conveyed to the market as a percentage of the par value of a share. For example, for 2006, OGDCL announced a 37.5% dividend (final) based on a par value of Rs.10; the dividend per share was therefore Rs. 3.75.
[29] The Securities and Exchange Ordinance 1969, Section 15D (1).
[30] The Securities and Exchange Ordinance 1969, Section 15E (1).
[31] The Securities and Exchange Ordinance 1969, Section 15E (2b, 2c).

city and because it had a big sea port. On September 18, 1948, within two months of Pakistan being established, the KSE started operations, and therefore became the first stock exchange in Pakistan. Initially, it was a partnership of interested groups but it incorporated as a company limited by guarantee on March 10, 1949.

In 1954, after the KSE had operated for several years, the Dhaka Stock Exchange was set up in the capital city of East Pakistan (now Bangladesh) (Mollah, 2001). In the late 1950s, there were attempts to re-establish a stock exchange in the city of Lahore; however, these efforts lapsed (Mirza, 1993). It was not until 1969 that the current Lahore Stock Exchange (LSE) was established; it became operational in May 1971. In 1992, the Islamabad Stock Exchange (ISE) was set up in the new capital of Pakistan. At present, therefore, there are three stock exchanges operating in Pakistan. Since 1997, the trading days on the three stock exchanges have been Monday to Friday (Ali and Akbar, 2009).[32] All the three stock exchanges are emerging stock markets (see Standard & Poor's Emerging Markets Factbook, 2009). Moreover, Pakistan (along with Vietnam, Sri Lanka and Bangladesh) is a constituent of the Asian section of the MSCI Frontier Markets Index; for 2010 (the only year for which data for all four markets was available), index value growth rates for these nations were 21.0%, 9.0%, 62.0% and 41.0% respectively (www.msci.com). In addition, the stock exchanges are categorised as risky due to the nation's unstable political system, volatile economic performance and high inflation rates in the country (Iqbal, 2008).

The KSE is the largest of the three markets with 85.0% of turnover recorded for Karachi; only 14.0% of turnover occurs on the LSE while about 1.0% relates to ISE equities (Iqbal, 2008). Most of the companies listed on the KSE have cross-listed on the LSE and the ISE; this in turn has reduced the volume on both the LSE and ISE stock exchanges because most trading occurs on the KSE. In Pakistan, 40.0% of equity shares are in the hands of

[32] On 23rd February 1997, the then government declared Sunday as weekly holiday instead of Friday.

promoters and directors, 35.0% of shares are held by small investors and 25.0% are owned by institutional investors (Lukman, 2010). Despite the deteriorating security situation in the country, the Pakistani equity capital earned market returns of almost 30.0% per annum from 1998-2008 (Husain, 2008). All three exchanges have seen tremendous growth in recent years, with market capitalisation between 2004 and 2007 rising by 261.0%, 174.0% and 183.0% on the Karachi, Lahore and Islamabad exchanges respectively. While the markets experienced falls following the global financial turmoil of 2008, the capitalisation values in all cases remained above the 2004 figures and have since resumed growth.[33]

Transactions on all the three stock exchanges are managed by the National Clearing Company of Pakistan Limited (NCCPL). The NCCPL was established on July 3, 2001 for settlement of security transactions arising from dealings on the stock exchanges. The NCCPL established the National Clearing and Settlement System (NCSS) to carry out the settlement of securities for all three markets. The settlement and clearing procedure can be carried out in different ways as trading is categorised into five distinct groups. The most common settlement period is T+2. Under this arrangement the buying, selling, payment, receipt and transfer of securities for each member is settled by the NCSS within two working days (www.nccpl.com.pk).

As a result of the large volume of trading on the three stock exchanges, the handling of physical share certificates became burdensome. As a result, the Central Depository Company of Pakistan (CDC) was set up in September, 1997. Its main function is to register security transfers using an electronic book-entry system. Investors, at their discretion, have access to the security certificate if they wish. Currently, about 97.0% of trading is settled through the CDC (Investor Guide, 2008). The goal of the CDC and the NCCPL is the establishment of an efficient electronic capital market in Pakistan.

[33] The data were obtained from the websites of the three stock exchanges.

The LSE is the second largest stock exchange of Pakistan. There are currently 511 listed companies spread across 37 different sectors with a total market capitalisation of Rs. 2,018.2 billion.[34] There are 152 members of the LSE of whom 81 are corporate and remaining are individual persons. Table 2.3 provides detailed information about the LSE in Panel 'A'. The LSE has two branches – one in the city of Faisalabad and the other in Sialkot. The LSE is the most dynamic stock exchange in Pakistan; for example, it was the first to shift from a trading pit system to an automated trading system in 1994; it also pioneered internet-based trading for its members in 2001. The benchmark of the LSE is the LSE-25 index.

Table 2.3 Information about the Lahore and Islamabad Stock Exchanges

	2004	**2005**	**2006**	**2007**	**2008**	**2009**
Panel A: Lahore Stock Exchange						
Total Listed Companies	534	524	518	520	514	511
Listed Capital (Rs. Billion)	361.5	402.9	469.5	594.6	664.5	728.3
Market Cap (Rs. Billion)	1406.2	1995.2	2693.3	3859.8	3514.2	2018.2
Market Cap % of GDP	6.3	6.1	6.1	6.8	5.4	5.4
Turnover (Rs. Billion)	19.9	17.5	15.1	8.2	6.5	2.7
LSE-25	2828.3	3762.3	4379.3	4849.9	3868.8	2132.3
Panel B: Islamabad Stock Exchange						
Total Listed Companies	248	236	240	240	246	261
Listed Capital (Rs. Billion)	287.5	337.3	374.5	488.6	551	608.6
Market Cap (Rs. Billion)	1082.9	1558.4	2101.6	3060.6	2872.4	1705.1
Market Cap % of GDP	5.0	5.1	4.8	5.6	4.4	4.5
Turnover (Rs. Billion)	1.5	0.7	0.4	0.2	0.6	0.3
ISE-25	1587.8	1558.4	2101.6	3060.6	2872.4	1705.1

Note: The data has been collected from the Economic Surveys produced by Pakistan's Ministry of Finance. Listed Capital shows the aggregate total number of shares issued by listed companies; Market Cap shows the aggregate Market Capitalisation of listed firms.

[34] Data taken from: www.lse.com.pk at the end of 2009.

The ISE was incorporated as a limited company on 25th October 1989 and began its operations in July 1992. It is the smallest of the three exchanges with only 261 listed companies and a total market capitalisation of Rs. 1,705.1 billion.[35] It currently has 120 members including 94 corporate and 26 individual members. It was felt that the establishment of the ISE would facilitate growth in the less-developed Northern part of Pakistan. On 1st January 2004 the ISE established its own benchmark index, the ISE-10.[36] Panel 'B' of Table 2.3 gives detailed information about the performance ISE over the period 2004-09.

2.5 The Karachi Stock Exchange

The main focus of the present study is on the KSE, as the dominant market in Pakistan and the data for the stock market reaction analysis (Chapter 5) has been taken from the market. As a result, the structures and performance of this exchange are now discussed in more detail than its smaller counterparts. Specifically, Section 2.5.1 outlines the background history of the exchange and discusses its current management structure. Section 2.5.2 elaborates on the liberalisation of the financial market while the KSE crash of 2005 is the focus of Section 2.5.3. The performance of the KSE is discussed in Section 2.5.4 and the market indices used in the KSE are the focus of Section 2.5.5.

2.5.1 Background and Management

The KSE is the oldest and the largest stock exchange in Pakistan; it is also the second oldest stock exchange in the whole of South Asia. Up until June 1990, individuals or partnerships of relatives were allowed to become members of the KSE; corporations were permitted to become members after this date (Investor guide at the KSE website, 2011). Initially two corporations became members but this number quickly grew; currently there are

[35] Data taken from: www.ise.com.pk at the end of 2009.
[36] Before this, KSE-100 index was used a benchmark for trading.

183 corporate members out of the total of 200.[37] Membership became fixed at 200 in 1966 and this limit still remains; a prospective member therefore has to buy a seat on the KSE from one of the existing members.[38] The KSE is run by a Board of Directors which comprises10 members: five members of the KSE, four individuals who are not members of the KSE and one Managing Director. The four non-members are elected by the SECP and the five members are elected by their peers. A Chairman is elected out of the non-members by the Board with the Managing Director acting as the Chief Executive of the exchange dealing with its operational and administrative functions.

In the 1960s, the KSE grew rapidly with large increases in the number of shares traded.[39] At its outset, the KSE used an open-out-cry system of trading, but this changed in May 1998 when a computerised trading system, known as the Karachi Automated Trading System (KATS), has introduced. The system had significantly increased the turnover ratio as Table 2.5 shows; in fact, the ratio grew to 475.5% in 2000 compared to 8.7% in 1990 (World Bank Statistics, 2000). Now all transactions take place via computers and transactions costs are freely negotiable between members and clients.[40] In addition to these transaction costs, an additional stamp duty is charged on the physical transfer of shares at the rate of 1.5% of the face value of the shares concerned.

The KSE facilitates trading of different securities including common shares, preference shares, redeemable certificates and corporate bonds. In addition, the exchange is planning to deal with derivatives in the near future (www.kse.com.pk, 2011). The KSE has also introduced a cap on the extent to which securities are allowed to vary; only share price fluctuations of five percent around the opening share price of the security are now allowed, if

[37]The first two corporate members were Jahangir Siddique & Co. Limited and Khadim Ali Shah Bukhari (KASB) Limited. In addition, 13 current corporate members are also listed on the KSE (investor guide, KSE).
[38] Corporate entities and foreign entities are entitled to apply for membership of the KSE.
[39] For this reason, the KSE established a Clearing House in 1969 to regularize its operations. Currently, NCCS is regularising the clearing of the securities of the three stock exchanges.
[40] During the interviews, it was observed that the transaction cost in practice varied from 4.0-10.0%.

Table 2.4: Company Information for the KSE

Year	Number of Companies	Companies that Announced Annual Results	Profit Making Companies	Loss Making Companies	Dividend Paying Companies	Profit Making Companies that Omitted Dividend	Profit Before Taxation (Rs billion)
2005	661 (100%)	582 (88.05%)	436 (65.96%)	146 (22.09%)	300 (45.39%)	114 (20.57%)	326.3
2006	651 (100%)	565 (86.78%)	411 (63.13%)	154 (23.65%)	294 (45.16%)	117 (17.97%)	376.7
2007	655 (100%)	562 (85.80%)	366 (55.88%)	196 (29.92%)	267 (40.76%)	99 (15.11%)	382.7
2008	653 (100%)	551 (84.38%)	323 (49.46%)	228 (34.92%)	231 (35.38%)	99 (15.16%)	316.9
2009	656 (100%)	520 (79.2%)	269 (41.0%)	251 (38.2%)	186 (28.35)	-------	255.3

Source: The data has been taken from the Karachi Stock Exchange (www.kse.com.pk). The Table shows the number of companies, companies which declared their annual results, profit making companies, loss making companies, dividend paying companies and profit making companies that omitted dividend and profit before taxation.

the share price is more than Rs. 20. In the case of prices less than Rs. 20, a fluctuation of one rupee above or below on the opening share price is allowed.

The KSE also provides the public with a list of defaulting companies which results in shares being de-listed from the KSE. One of the many reasons for a de-listing is the failure of a profitable company to declare a dividend (cash or share) over a period of five years from its last declaration date. Each year the KSE also identifies a list of the top 25 companies on the basis of their efficiency in different areas[41] especially the declaration of 'sizable' dividends for shareholders (Kaleem and Salahuddin, 2006). The prerequisite for inclusion of a company in the ranking is the declaration of a minimum of a 40.0% dividend for the year (including at least a 15.0% cash dividend).

Table 2.4 shows the percentage of KSE companies that have declared a dividend over the period 2005-09.[42] According to the KSE statistics in the table, less than 50.0% of listed companies paid dividends during 2005-09, with the percentage varying considerably from year to year.[43] For example, 45.4% of profitable firms paid a dividend in 2005; however, only 28.4% of the companies made such distributions in the year 2009. Moreover, a significant percentage (ranging from 15.1% to 20.6%) of companies omitted their dividend despite their businesses being profitable. Inspection of Table 2.4 also indicates that about half the companies were profitable over the period 2005-09. For example, in 2005, 66.0% firms earned a profit while only 41.0% declared a profit in 2009. A comparison of the statistics in Table 2.4 with the economic data in Table 2.2 clearly indicates that a relationship exists between the macro-economic performance in Pakistan and dividend payout rates. As Table 2.2 shows, when the economy was growing, dividends were high.

[41] For the selection of the top 25 companies for 2009, the criteria and weighting of the different variables were: distribution of profit (40.0%); return on equity (30.0%); free-float of shares (5.0%); corporate social responsibilities (5.0%) and 20.0% for other variables including the holding of regular meetings and Annual General Meetings (AGMs) etc. (www.kse.com.pk)

[42] The table uses data for the same period as is employed in the empirical work of event study.

[43] The work of Naeem and Nasr (2007) reported that 38.0% of Pakistani firms paid a dividend (which ranged from 0% to 2.5 % of earnings) to shareholders over the period 1999-2004.

2.5.2 Market Liberalisation

Henry (1999) defines liberalisation as a set of policies adopted by a country to allow for foreign investment. The liberalisation of the Pakistani capital market took place in February, 1991. The aim of this policy was to attract foreign investment into the country, investment needed to aid the government's privatisation programme in raising revenue for State spending. For example, in the late 1990s, privatisation of 10.0% of the shares of Pakistan International Airlines (PIA) raised about $12.7 million for the government of Pakistan. The measures taken during the liberalisation process included: the removal of barriers on the holding of foreign currency; allowing the repatriation of dividend and capital gains; eliminating restrictions on the foreign ownership of shares of all listed companies (except life insurance firms);[44] and allowing foreign-owned companies to export (Kemal et al., 2002). Where the controlling shareholders are foreign companies high dividend payouts have tended to be announced; dividends are often seen as the most feasible and tax-efficient way for foreign investors to receive returns on their investment (Nishat and Bilgrami, 1994). The liberalisation of the capital market in 1991 made it easier for companies to remit their share of profit to foreign countries. According to Nishat and Irfan (2001), reforms specific to dividend policy were: "tax ceiling on cash dividends, exemption of rights and bonus shares from tax, pattern shifting from cash to share dividend and government policy of easing restrictions on the transfer of market profits." (p. 3)

As a result of the liberalisation, the number of listed companies increased from 487 in 1990 to 542 in 1991. Market capitalisation rose to $7,326 million in 1991 from $2,850 million in 1990 (Mirza, 1993). In addition, the number of companies (and their market capitalisation) increased significantly from 314 (Rs. 9.7 billion) in 1980 to 487 (61.7 billion) in 1990. However, Iqbal (2008) was critical of this process arguing that the policies of the

[44] Formal approval was required from the State Bank of Pakistan in the case of issuance and transfer of more than five percent of shares of banks or financial institutions to foreigners (Kemal et al., 2002).

government did not bring the desired benefits to the economy; in fact, real GDP growth declined immediately after the liberalisation of the market. Iqbal and several other academics put forward a number of reasons for the failure of the government's liberalisation policy. First, according to Husain (2008), Pakistan became one of the most heavily indebted countries of the world;[45] he labelled the 1990s as: "the lost decade in terms of stunted growth, an increase in the incidence of poverty, the burden of debt, large fiscal and current account imbalances, poor social indicators, and a high rate of inflation" (p. 9). Second, the economic sanctions imposed by the international community, especially the US, after Pakistan undertook five nuclear tests on 28th May 1998 had a major effect.[46] The other reasons for the decline included the political turmoil in the country (see Section 2.3), budget deficits, devaluation of the currency and natural disasters such as a serious flood in 1993 (Kemal et al., 2002).

2.5.3 The KSE Crash of 2005

After the events of September 11th in the US, economic sanctions on Pakistan eased and financial support was provided for the country by the international community – especially the US – for its help in the fight against terrorism. As a result of these changes, the KSE achieved remarkable growth levels from the beginning of 2002 to the end of 2004 (see Table 2.5). Over this period, the KSE-100 index rose by 388.0% from 1,273 to 6,218; market capitalisation increased six fold from $5 billion to approximately $30 billion. Indeed,

[45] The amount of total debt reached to a peak of $43.0 billion in May 1998 as compared to $20.0 billion in June 1990. Pakistan's external debt had grown at an average rate of 8.1% throughout the 1990s; it reached a peak of 47.6% of GDP. In that year, investment fell to only 13.9% in 1998-99 with a downward trend continuing until 1995. The annual growth rate dropped from an average of 4.5% in the 1990s compared to 6.3% in 1980s. During the period 1990-99, poverty increased from 18.0% to 34.0%.

[46] These sanctions led the economy to the brink of default; by the end of 1990s, Pakistan's international debt owed was $30.7 billion, of which $2.4 billion was payable to the US and $14.1 billion was owed to multilateral development banks (Rennack, 2001). In 1999, tension at the Kargil Border increased between Pakistan and India over the issue of Kashmir. The situation escalated such that the countries were on the brink of a fourth war. Moreover, the economic and military sanctions imposed as a result of Pressler Amendments (violation of nuclear ban) in October 1990 also contributed towards the absence of benefits from the liberalisation policy (Rennack, 2001).

between January 1 and March 15, 2005, the KSE-100 index increased by 65.0% reaching a peak of 10,303 points. The trend continued until the week starting March 16, 2005 when the KSE experienced the biggest crash in its history. As a result, the index fell by about 25.0% in eight trading days (Mangi, 2005). From March 15 to March 28, 2005 the market capitalisation of the KSE dropped by about $11.8 billion (from $46.8 billion to $35.2 billion). At the end of 2009, there were only 152 active members in the KSE out of a total of 200. A number of members became inactive following the crash, at which time many small investors defaulted.

Siddiqui (2006) argued that the so-called economic growth was "a trap" which caused many small investors to lose their savings. Medium and small investors lost about Rs. 750 billion as a result of the stock exchange crash of 2005. Siddiqui (2006) alleged that the ministry of finance, the SBP, institutional investors, the privatisation commission and the KSE's administration were all responsible for the collapse. In April 2005, the SECP formed a task force to investigate the reasons for the crash and to make recommendations to prevent such a crisis in future. The reason for the crash, according to the task force, was that the stock market grew to peak prices without any tangible increase in the fundamentals.[47]

2.5.4 Performance

At the time of its incorporation, there were five or six active brokers in the KSE out of a total of 90 members. This was not surprising since the KSE only had five companies listed in 1948 with a market capitalisation of Rs. 35 million. Over a period of time, the market grew both in terms of the number of listed companies and total market capitalisation. Indeed, the number of listed companies (market capitalisation) has increased over each decade (with the exception of 2001-2009); these were: 15 companies (with market capitalisation of Rs. 0.80

[47] The document published by SECP in June 2005 having title: "Stock Market Review Taskforce: Report into Stock Market situation March 2005."

billion) in 1950; 81(Rs. 1.8 billion) in 1960; 291 (Rs. 5.6 billion) in 1970; 314 (Rs. 9.7 billion) in 1980; 487 (Rs. 61.7 billion) in 1990; 762 (with a market value of Rs. 382.7 billion) in 2000; and 650 (Rs. 2,715.7 billion) in 2009.[48] This data shows that the 1960s witnessed a tremendous growth in the trading of shares on the KSE primarily due to the success of the second Five-Year Plan (1960-65) (Hussain and Qasim, 1997). The growth in trading volume on the KSE declined as a result of political unrest in the 1970s leading up to the independence of Bangladesh and the nationalisation of many companies (Iqbal, 2008). In the 1980s, share trading started to grow again as a result of these nationalised companies being privatised and individual investment being encouraged (Hussain and Qasim, 1997). As noted earlier, the trading of shares on the KSE increased in the 1990s following the liberalisation policy of 1991 (Kemal et al., 2002; Khan, 1999), but it fell again at the end of 2009 after the enactment of a new Code of Corporate Governance whose requirements were not met by all firms (Mir and Nishat, 2004; Shaheen and Nishat, 2005; Iqbal, 2008).

The KSE achieved tremendous growth rates over the last decade despite the deteriorating law and order situation. In fact, the KSE remained among the most liquid stock exchanges in the developing world, with Business Week declaring it as the "Best Performing Stock Market of the World for 2002" (CNN, Cable News Network, news 01/01/2003) despite the fact that the number of listed companies declined slightly to 712 in 2002 from 747 the previous year. According to Iqbal (2008), the turnover ratio of the KSE in 2006 was higher than in a sample of countries which included the US, Japan and India.

Table 2.5 shows that despite the crash in 2005, the KSE performed especially strongly over the period from 2002 to 2007. A significant increase in market capitalisation was documented from Rs. 595.2 billion in 2002 to Rs. 4329.9 billion in 2007, despite the fact that the number of listed companies fell from 712 to 658 over this period. Other measures

[48] The data has been taken from: www.kse.com.pk

confirmed that the performance of the KSE improved over this period; for example, in 2006 the KSE-100 index broke through the 10,000 barrier for the first time in its history. However, this out-performance did not last. Turnover fell in 2007 and 2008 while the value of shares traded also declined; in 2008, the KSE-100 index lost more than 58.0% of its value from a peak of 14,077.2 in 2007. The 2008 election of a new government coincided with the global down-turn which seemed to impact Pakistan quite severely. A visual inspection of Table 2.5 also reveals that the highest negative P/E value was documented in 2000 suggesting that a large number of companies incurred losses in that year.[49] However, the P/E ratio improved after the 2001 period, reaching its highest level of 15.3 in 2007. An analysis of Table 2.5 documents the highest dividend yield of 12.5% for 2001 when the P/BV ratio was at its lowest level of 0.9%. However, dividend yields fell as share prices increased over the years 2002-2007. The year 2008 again witnessed an increase in dividend yield of 11.8% as the P/BV reduced to just 0.8%.

In general, the statistics in Table 2.5 indicate that the KSE was characterised byreasonable levels of liquidity, a small float and share price volatility over the first decade of the current century (Ali and Mustafa, 2001; Hussian, 2008). Furthermore, the high turnover ratio and low market capitalisation ratio to GDP of the KSE differentiate it from developed stock markets. For example, the market capitalisation to GDP ratio ranged from 10.6% in 2002 to 49.1% in 2007, while the turnover ratio ranged from 475.5% in 2002 to 115.96% in 2008. By contrast, on average, the US had a market capitalisation to GDP ratio of 90.0% and a turnover ratio of 64.0% over the same period (Mustafa and Nishat, 2007).[50]

[49] These losses might have been due to sanctions imposed by the international community due to nuclear tests and the military coup; the Kargil conflict between India and Pakistan in 1998 may also been contributed towards the losses (Rennack, 2001; Chandio, 2006).

[50] Thses features are common amongst emerging stock markets, reflecting poor information, the existence of insider trading and market manipulation (Mustafa and Nishat, 2007).

Table 2.5: Information about the KSE over the period 2000-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number of Companies	762	747	712	701	661	661	652	658	653
Market Cap (Rs. Billion)	379.0	296.1	595.2	951.4	1,723.4	2,746.5	2771.1	4,329.9	1,858.7
Market Cap as % of GDP	10.6	6.9	14.3	20.1	30.1	41.9	35.7	49.1	N/A
Trading Value (Rs. Billion)	1,760.1	765.6	1,542.9	3,846.3	4,313.9	8,395.9	7,617.1	6,103.2	3,528.6
Turnover Ratio (%)	475.5	226.8	346.2	497.4	322.6	375.7	276.1	171.9	115.96
KSE-100 Index	1,507.6	1,273.1	2,701.4	4,471.6	6,218.4	9,556.6	10,040.5	14,077.2	5,865.0
% Change in KSE-100	7.0	-15.6	112.2	65.5	39.1	53.7	5.1	40.2	-58.3
P/E Ratio	-117.4	7.5	10.0	9.5	9.9	13.1	10.8	15.3	3.0
P/BV Ratio	1.4	0.9	1.9	2.3	2.6	3.5	3.2	4.7	0.8
Dividend Yield (%)	6.2	12.5	9.2	7.5	7.0	2.5	4.0	3.3	11.8

Note: The table is based on data from Standard & Poor's Global Stock Markets Factbook, 2009. The table shows the total number of listed companies, Aggregate market capitalisation ("Market Cap") of all listed companies, Market capitalisation as percentage of Gross Domestic Product (GDP), Trading value, Turnover ratio, Price Earnings ("P/E") ratio and is the Price to Book Value ("P/BV") ratio.

Table 2.6 provides sector-wide data about KSE-listed companies and their paid-up capital as well as their market capitalisations at the end of September 2009. An analysis of this table reveals that the smallest sector in terms of constituent companies was Tobacco with only three firms listed; by contrast, the largest sector in terms of listed companies was Textile Spinning with 106 firms. A distant second was Textile Composite with 60 companies quoted. Although the number of textile companies listed on the KSE is large, they tend to be small, on average. Moreover, the market capitalisation of these 166 firms is only 2.4% of the total value of the market. The small market capitalisation of the textile companies is not surprising; many are family-owned businesses with low free floats of shares (Nishat and Bilgrami, 1994). Such companies tend not to issue equity to non-family members in order to maintain control.

An analysis of Table 2.6 indicates that Oil and Gas Exploration firms had the highest market capitalisation of Rs. 708.3 billion at the end of 2009. In addition, a study of the market capitalisation data reveals that the four Oil and Gas Exploration firms and the six Oil and Gas Marketing companies constituted 30.5% of the total market value of the KSE. The other dominant sectors on the basis of market capitalisation data were Commercial Banks, Power Generation and Distribution, Fertilizer and Food & Personal Care Products companies; the market value of the 65 companies in these four sectors represented 39.2% of the total capitalisation for the whole market. Table 2.6 also shows that the highest paid-up capital of Rs. 251.1 billion for 25 Commercial Bank sector; this constitutes about 31.4% of the total paid-up capital of the KSE at the end of 2009. This sizeable amount is not surprising because minimum capital requirement levels were increased by the SBP. On the basis of paid-up capital, the Power Generation & Distribution sector was a distant second with Rs. 89.7 billion.

Table 2.6 Sector Information for Companies on the KSE at the end of September 2009

Sector No.	Name of Sector	Number of Companies	Total Paid-Up Capital (Rs. Billion)	Market Capitalisation (Rs. Billion)
01	Close-end Mutual Funds	22	27.4	18.1
02	Modarabas	34	9.6	4.2
03	Leasing companies	16	5.8	5.4
04	Inv. Bank / Inv. Cos / Sec. Cos	30	28.0	66.6
05	Commercial Banks	25	251.1	681.0
06	Insurance	38	13.8	71.8
07	Textile Spinning	106	14.8	13.3
08	Textile Weaving	18	3.5	1.8
09	Textile Composite	60	24.4	53.9
10	Woollen	5	0.1	0.1
11	Synthetic & Rayon	19	10.2	20.4
12	Jute	5	0.5	5.3
13	Sugar & Allied Industries	37	8.9	18.9
14	Cement	21	56.4	80.5
15	Tobacco	3	3.1	38.9
16	Refinery	4	5.9	39.2
17	Power Generation & Dist.	13	89.7	101.2
18	Oil & Gas Marketing Cos.	6	15.4	119.0
19	Oil & Gas Exploration Cos.	4	55.7	708.3
20	Engineering	13	3.4	13.2
21	Automobile Assembler	13	6.0	51.4
22	Auto Parts & Accessories	11	1.7	5.4
23	Cables & Electrical Goods	9	1.9	16.3
24	Transport	5	24.6	25.3
25	Technology & Comm.	10	70.3	93.5
26	Fertilizer	4	20.1	164.0
27	Pharmaceuticals	8	3.6	36.0
28	Chemicals	26	27.2	70.7
29	Paper & Board	10	2.2	17.2
30	Vanaspati & Allied	10	0.2	0.2
31	Leather & Tanneries	5	0.3	10.3
32	Food & Personal Care Products	23	3.1	119.8
33	Glass & Ceramics	11	3.2	7.5
34	Miscellaneous	26	6.5	35.4
	TOTAL	650	800.1	2,715.7

Note: The data has been extracted from the official website of the KSE. The table shows the total number of listed firms; the aggregate Paid-up (listed) Capital of all listed firms and Market Capitalisation at the end of September, 2009. Sector 4 is the Investment Banks; Investment Companies and Securities Companies. Sector 17 is Power Generation and Distribution while Sector 22 is Automobile Parts and Accessories. Sector 25 is Technology and Communication while Sector 30, Vanaspati, is a form of cooking oil.

2.5.5 Market Indices

Various indexes have been introduced to gauge the share price performance of the main Pakistani stock exchanges. The KSE-50 share index was used as the main index of KSE until November 1, 1991 when the KSE-100 was introduced to capture changes in over 80.0% of total market capitalisation.[51] This index is currently used as the benchmark for measuring the performance of share prices by the KSE. The KSE-100 index is comprised of 100 companies: 34 companies are selected on the basis of having the largest market capitalisation in each of the 34 Karachi Stock Exchange sectors;[52] while the remaining 66 companies are included on the basis of their market capitalisation irrespective of the industry to which they belong. November 1, 1991 is used as the base year for calculating the KSE-100.

The quarterly performance of the KSE-100 index over a period of 11 years is shown in Figure 2.2. Inspection of this figure shows that the index moved upward from September 2001, peaking during the last quarter of 2007 when it reached a level of 14,075.83; this partly reflects an increase of 41.1% in 2007 alone (Zaghum, 2008). Different reforms have been suggested as explaining to this increase by Husain (2005, 2008, 2009 and 2010) (e.g. see Section 2.3). While the KSE-100 is the main index, other indices are available to investors. For example, on September 18, 1995 the KSE introduced the KSE-All shares index, which consists of all companies listed on the KSE at a particular point in time. For international investors, the exchange also established the KSE-30 index as a benchmark of major share performance; it is comprised of the top 30 companies calculated on the basis of free float market capitalisation. To cater to the needs of Islamic focussed investors, the KSE introduced the first Islamic index, KMI-30, in 2008 based on the free float market capitalisation. Currently, a limit of 12.0% exists for each company on the KMI-30 whereby the market capitalisation of an individual company cannot exceed 12.0% of the total KMI-30 index

[51] The statistics are taken from the official website of KSE (www.kse.com.pk). In 2005, 88.0% of the total market capitalisation was represented by the KSE-100 index.
[52] Table 2.4 shows the 34 sectors.

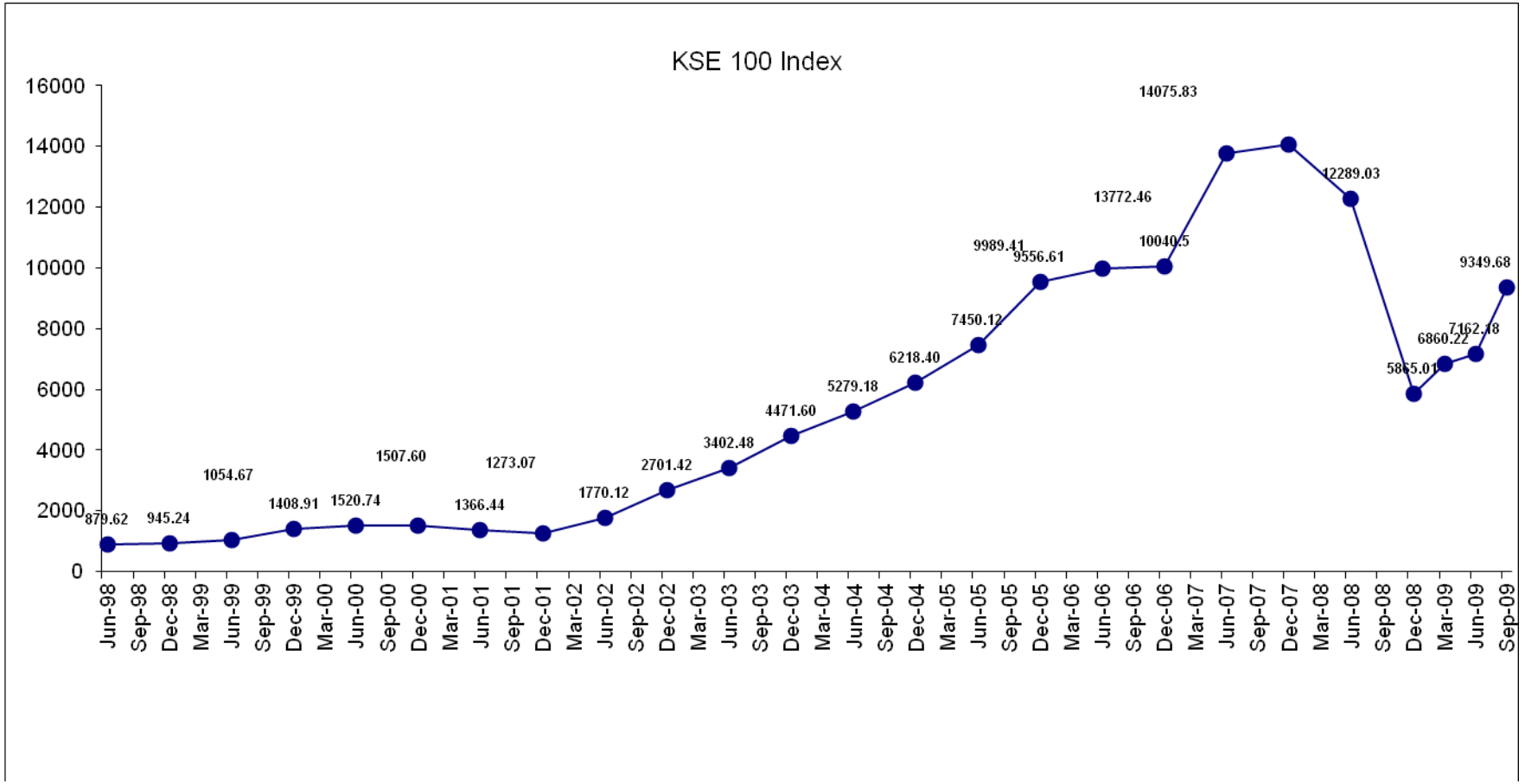
value. This rule was introduced in order to control the volatility of the index to avoid the influence of large companies.

2.6 Conclusion

This chapter had provided detailed information about the nation of Pakistan, focusing on its economy and financial system. It has been observed that Pakistan developed a financial system since its inception with on-going reforms being introduced to bring the system up to international standards. However, all of the reforms did not have their desired results as political instability and a lack of continuity in policies over time interrupted their implications. The chapter has also depicted the increase in the number of listed companies over the period on all three stock exchanges especially the KSE. In addition, the chapter has outlined the institutional structure underpinning the financial system. In this context, the role of the SECP has been shown to be vital in managing the stock exchanges and introducing regulations for avoiding insider trading as well as enforcing corporate governance standards. The SECP has also promulgated regulations regarding the conduct of Board of Directors' meeting and, most critical of all for the present study, the regulations affecting the disbursement of dividends.

In general, the Pakistani economy (especially each of the stock markets) has shown remarkable resilience in the wake of severe crises such as: the wars with India; the division of Pakistan into two parts; devastating natural disasters (earthquakes and floods); political instability; and a deteriorating law and order situation.

Figure: 2.2 Quarterly KSE-100 Index from June 1998 to September 2009



Note: The data has been taken from the research division of the KSE.

CHAPTER 3

LITERATURE REVIEW

3.1 Introduction

Dividends are payments made out of earnings to a firm's owners (shareholders). They are therefore viewed as a reward to the shareholder for providing equity finance to a corporation. Dividends are paid in three ways: cash dividends – paid in the form of cash; stock dividends – an issue of additional shares to shareholders; and liquidating dividends, paid at the time of liquidation of the firm.[53] Within corporate finance, dividend policy represents one of the most intensively-researched topics that academics have studied. Numerous researchers have attempted to solve the "dividend puzzle" identified in Black (1976) but these studies have not yet arrived at an unequivocal solution (Brealey et al., 2008). A mix of opinion therefore exists about why firms pay dividends and whether the selection of a particular dividend policy can influence the value of a firm.

Generally, financial researchers are divided into three groups on the basis of their beliefs about the impact of dividend policy on firm value. The first group believe that dividends have information content: an increase in the dividend payout increases firm value (Pettit, 1972; Lonie et al., 1996; McCluskey et al., 2006). The second group are of the opinion that an increase in dividend tends to reduce share price because (i) it suggests that firms have a dearth of positive NPV projects needing investment (Woolridge and Ghosh, 1985; Soter et al., 1996) or (ii) it leads to higher taxation payments when the tax on income is higher than that a capital gains (Litzenberger and Ramaswamy, 1979; Litzenberger and Ramaswamy, 1982; Poterba and Summers, 1984; Lasfer, 1995; Bell and Jenkinson, 2002; Brealey et al., 2008). The third group claim that dividend policy has no effect on firm value (Miller and Modigliani, 1961; Black and Scholes, 1974; Miller and Scholes, 1982; Uddin,

[53] In the 1980s, a new concept of share repurchases emerged as an alternative payout mechanism with the primary aim of increasing the earnings per share ratio of the firm. This method increased in popularity such that in the US repurchases equalled 25.0% of total earnings over the period 1984-98 as compared to 4.5% of total earnings for the period 1972-83 (Grullon and Ikenberry, 2000).

2003; Kaleem and Salahuddin, 2006). The current thesis examines whether these views on dividend changes characterise disbursement practices in Pakistan.

The chapter groups the previous studies in the area into three broad categories. First, the literature covers various perspectives of dividend policy in developed stock markets; as many of the seminal studies were conducted in these markets an outline of their findings should provide a backcloth against which the Pakistani results of the current thesis can be compared.[54] The second part of the literature review discusses dividends in emerging stock markets – especially those in the South Asian region. The final section of the literature review focuses on the findings of previous studies of dividend policy and signalling in Pakistan itself. The review of studies from South Asian markets facilitate a greater level of comparability with the current results because of the relative homogeneity of the markets and the similar culture and environment which they share with Pakistan. Mostly, the literature review deals with the evidence of the signalling effect of dividends in both developed and emerging markets (especially the South Asian markets including Pakistan). Other aspects of the literature on dividends (e.g. taxation) are not examined in great depth within the current thesis.

The remainder of the chapter is structured as follows. Section 2.2 discusses the dividend irrelevance assumptions while the behavioural aspects of dividends are the focus of Section 3.3. The signalling hypothesis of dividends is elaborated on in Section 3.4; a detailed analysis of the information content hypothesis, collaboration effect of dividend on earnings and an alternative information hypothesis are outlined. The other factors which may affect a company's dividend policy are discussed in Section 3.5 while the signalling hypothesis in South Asian countries is discussed in Section 3.6. Section 3.7 supplies a detailed review of

[54] Most of the studies discussed in the literature review had a profound influence on the methodology and methods employed in the current thesis; these are the seminal works on different aspects of dividend policy and are reviewed in the literature even though many related to developed markets which are different from Pakistan.

the literature about the dividend studies that have been conducted in Pakistan. Finally, Section 3.8 concludes the chapter.

3.2 Dividend Irrelevance

The debate concerning the relevance of dividends to firm value started with the seminal work of the Merton Miller and Franco Modigliani entitled "Dividend Policy, Growth, and the Valuation of Shares" which was published in *The Journal of Business* in 1961. In this paper, the authors put forwarded the "theory of irrelevance"; according to MM the dividend paid by a firm was irrelevant for shareholders when certain assumptions[55] held. The authors argued that investors did not care about whether they received the firm's cash flows in the form of dividends or capital gains. According to MM's assumptions, any payment of a dividend would be balanced by an issue of shares in the market such that the gain of the cash payment for investors would be offset by a capital loss of an equal amount. For example, a one pound increase in dividend must be financed by issuing one pound of additional shares given MM's assumption that investment and borrowing policy had to be kept fixed.

The authors asserted that the real value of the firm was influenced by its investment opportunities as well as the earnings capability of the assets and not by the dividend policy:

> "Values are determined solely by "real" considerations –…the earning power of the firm's assets and its investment policy – and not by how the fruits of the earning power are "packaged" for distribution." (p. 414)

A number of researchers supported MM's view of dividend irrelevance (Black and Scholes, 1974; Miller and Scholes, 1982; Uddin, 2003; Kaleem and Salahuddin, 2006). For

[55] Their assumptions were based on "perfect capital markets" where "all traders [had] equal and costless access to information" along with "no brokerage fees, transfer taxes, or other transaction costs incurred when securities [were] bought, sold, or issued, and there [were] no tax differentials…between dividends and capital gains." Moreover, shareholders were assumed to be "rational"… "always prefer more wealth to less and [were] indifferent…..in cash payment or an increase in the market value of their holdings of shares." Finally the authors assumed "perfect certainty" [implied] complete assurance….to the future investment program" with "no need to distinguish between stocks and bonds" (p. 412).

example, Black and Scholes (1974) studied the impact of dividend policy on the expected returns of a company's shares. The authors documented that the co-efficient of the dividend yield variable was insignificant at 0.0009 with a t-value of 0.94, supporting the MM dividend irrelevance hypothesis.

On the other hand, many researchers rejected the MM hypothesis on the basis of empirical evidence (Pettit, 1972; Lonie et al., 1996; McCluskey et al., 2006) and theoretical considerations (Lintner, 1956; Baker et al., 1985; Baker and Powell, 1999, Brav et al., 2005; McCluskey et al., 2007). They argued that in the presence of taxation and transaction costs, the argument of the dividend irrelevance hypothesis may seem unrealistic. For example, Baker and Powell's (1999)[56] survey about US firms' attitudes showed that, on average, 90.0% of these respondents rejected MM's (1961) theory that dividends were irrelevant and did not affect firm value. In fact, more than 88.0% agreed that a firm's dividend, investment and financing decisions were interrelated. The survey also rejected the assumption of MM (1961) that the dividend was residual after all profitable investments had been undertaken.[57]

3.3 Company Behaviour and Dividend Policy

Many finance academics have tried to explain the behavioural aspect of dividend policy in order to solve the "dividend puzzle" identified in Black (1976); why do so many companies continue to pay dividends when such disbursements are taxed more heavily than equivalent capital gains? Moreover, different cultures, economic policies and financial regulations can affect the way management view and decide upon dividend payout policies

[56] The authors distributed their questionnaire to a sample of 603 US firms including utilities, manufacturing and wholesale/retail companies listed on the New York Stock Exchange (NYSE) between April-May 1997. Responses were received from 198 firms (32.9%) for the 26 closed-end questions to executives who were actively involved in establishing their firms' dividend policy. The questionnaires was sent to executives including chief financial officers, vice presidents, treasurers, directors of investment and others using closed-end questions.

[57] When asked, about the relevance of dividend, 1/3 of respondents neither agreed nor disagreed with the bird-in-the-hand explanation of dividend policy (Gordon, 1959).

(Frankfurter et al., 2004). The commonly accepted seminal work in this area of dividend policy was undertaken by John Lintner in 1956.

Lintner (1956) studied the behavioural aspects of dividend policy while conducting a field investigation involving interviews with executives of 28 well-established US companies.[58] Taking dividend as an active decision variable, his results regarding dividend policy can be split into two parts. Firstly, the author discovered that management exercised caution about dividend policy when deciding upon their firm's payout strategy. This caution led to a stable dividend payment because management did not want to cut their firm's payout at some time in the future as this might convey a negative signal to investors. Most interviewees believed that shareholders focused mainly on earnings; however, they admitted that many shareholders were also interested in dividend and, in particular, the regularity of their payment. Lintner documented that "most managements sought to avoid making changes in their dividend rates that might have to be reversed within a year or so" (p. 99). Secondly, companies paid dividends on the basis of their earnings.

According to Lintner (1956), in two thirds of the 28 companies[59] investigated, management had a flexible but definite payout policy; they had a target payout ratio with an average level of about 50.0%. Respondents were mostly concerned with changes in the current rate of dividend payout rather than the amount of any new established payout. Indeed, forecasted earnings, existing earnings and the current dividend rate all had an impact on this target payout ratio; however, "net earnings were the predominant element which determined current changes in dividends" (p. 107). There was an incremental adjustment on a yearly basis to achieve the target payout level; specifically, the average adjustment factor was found to be 30.0% for the entire sample.

---

[58] The executives included presidents, financial vice-presidents, treasurers, controllers and directors.

[59] In the remaining one-third of companies, "management had no formal or well-established standards with respect to either target payout ratios or speed of adjustment" (p. 106) and decided dividend on an *ad hoc* manner.

On the basis of his fieldwork, Lintner (1956) suggested a behavioural model of dividend policy which can be summarised in the following equations:

$$\Delta D_{it} = a_i + c_i (D^*_{it} - Di_{t-1}) + U_{it} \quad [3.1]$$

Or $$D_{it} = a_{it} + b\ P_{it} + d\ D_{i\ t-1} + U_{it} \quad [3.2]$$

Where ΔD_{it} is the change in dividend; D_{it} is the dividend in current year; $D_{i\ t-1}$ is the dividend in the previous year; a_{it} is the constant term; c_i is the speed of adjustment factor; U_{it} is error term; and D^*_{it} or $r_i P_{it}$, is the target payout which is a function of the current year's profits (P_{it}). Equation [3.1] showed that a change in dividends was a function of the difference between a firm's target dividend payout and the previous year's dividend payout multiplied by a speed of adjustment factor. Moreover, these equations also showed that the dividend depended upon the earnings in the current year (P_{it}) and the dividend in the previous year ($D_{i\ t-1}$).

Upon fitting pre-war annual data from 1918 to 1941 to Equation [3.2], Lintner discovered that his model explained 85.0% of the changes in dividend. Using the same data for predicting post-war dividends, Lintner's model produced a minimum mean square error of 6.4% as compared to other naïve prediction models[60] where the error rate was 7.8%.

Several researchers have documented results which fail to improve on the equation which Lintner put forward (Darling, 1957; Brittain, 1966; Fama and Babiak, 1968; Baker et al., 1985; Baker and Powell, 1999; Kanwer, 2002; Brav et al., 2005; Naeem and Nasr, 2007; Ahmed and Javid, 2009). For example, using Lintner's model of dividend policy as a benchmark, Darling (1957) developed an alternative framework of dividend policy by adding two extra factors (current investment and the usage of external financing) into Lintner's behavioural model. Darling (1957) asserted that dividends were a function of current investments and funds availability along with the current earnings and prior year's dividend.

[60] The post-war period comprised of the years 1946-1954 inclusive. A 6.4% mean square error was documented for profit with an inventory adjustment and a 6.1% mean square error was recorded for a profit after inventory adjustment.

Similarly, Brittain (1966) put forward his model of dividend policy with a slight alteration where liquidity and the lagged dividend payout ratio were the prime variables in the dividend decision process. In the wake of the previous studies, Fama and Babiak (1968) conducted an empirical analysis of data for 392 US firms over the period 1946-64. The authors used regression, simulation and prediction methods to test different models of dividend changes to improve on the equation which Lintner put forward.[61] The results showed that Lintner's equation performed well in comparison to the other models examined. The coefficient of determination (R^2) for Lintner's model at 0.432 was the highest achieved.[62] Moreover, the authors found that a lagged earnings value slightly improved the explanatory power of Lintner's equation.

A series of similar studies undertaken in the wake of Lintner's work has arrived at the similar conclusion: in the US (Baker et al., 1985; Baker and Powell, 1999; Brav et al., 2005); in the UK (Dhanani, 2005) and in Ireland (McCluskey et al., 2007). Most of the findings of these studies support Lintner's behavioural model of dividend policy. Contrary to MM (1961), dividend was seen as an active variable; for instance, Brav et al. (2005)[63] found that executives gave almost equal importance to dividend and investment decisions although they had a slight preference for dividends. A number of interesting results can be drawn from these studies. Firstly, Baker et al. (1985)'s postal survey of 562 firms listed on the NYSE[64] partially supported Linter's model. Some 85.0% of respondents indicated that anticipated

[61] The authors used five naïve models and nine regression models with modifications to Lintner' model for prediction purposes.

[62] Adding a lagged value of dividends and profits to the regression equation, resulted in no major improvement; the lagged dividend variable (D_{t-2}) and lagged earnings variable (E_{it-1}) had coefficients which were not significantly different from zero with an R^2 of zero and 0.037 (0.469-0.432 = 0.037) respectively. The simulation method supported the view that the lagged earnings variable had some explanatory value. They also found that by removing the constant term and adding a lagged profit variable ($D_{it} = B_1 D_{t-1} + B_2 E_{it} + B_3 E_{it-1}$) there was a slight improvement in the predictive power of the model.

[63] A very comprehensive study about payout policies in the 21st century was conducted by Brav et al. (2005). Brav et al. obtained data from 384 financial executives of public and private companies using interview, survey and field study methods of data collection.

[64] Their sample comprised of three groups of firms: utilities, manufacturing and wholesale/retail companies. The overall response rate was 56.6 % (318 firms) for their questionnaire instrument which included 33 closed-end questions to chief financial officers (CFOs) of US firms.

future earnings were a key determinant of dividend policy; 66.0% said that the pattern of past dividends were another input into their firms' dividend policy.

Secondly, Baker and Powell (1999) supported Lintner's model about consistency in dividend payouts; 85.0% of respondents avoided a change in dividend which might have to be reversed in a year or so. Brav et al. (2005) also documented that executives were cautious when setting their dividend payment at the beginning of the 21st century. This caution was due to the fact that any expected change in return as a result of a dividend increase was less than the expected negative reaction to a dividend cut. However, 65.0% of respondents believed that it was sensible for a firm to cut its dividend in order to reduce any reliance on external financing (Brav et al., 2005).

Thirdly, the survey of Baker and Powell (1999) also provided support for the existence of a target payout ratio and the partial adjustment of dividends towards this target as suggested by Lintner's model; 75.0% believed in the steady growth and stability of dividends. Similarly, Baker et al. (1985) also indicated that respondents followed the implications of Linter's model especially in their view that firms should "maintain an uninterrupted record of dividend payments" (p. 80).

Fourthly, McCluskey et al. (2007)[65] found that the financial directors of quoted firms were supportive of the signalling hypothesis that dividend and earnings announcements were used to predict future earnings and hence affected the share prices.[66] Similarly, Baker et al. (1985) and Baker and Powell (1999) asserted that the respondents of their studies were of the opinion that dividend was used as a signalling device to convey information about likely future changes in a firm's share price (Pettit, 1972; Lonie et al., 1996; McCluskey et al., 2006). In line with the previous studies, Brav et al. (2005) documented that 80.0% of

[65] The behavioural aspect of dividend policy was also studied in the small developed country of Ireland by McCluskey et al. in 2007. McCluskey et al. (2007) conducted interviews with 20 finance directors of 12 quoted and eight unquoted Irish companies. They tried to ascertain perceptions about the bird-in-the-hand hypothesis, signalling theory and the tax-related clientele hypothesis.

[66] By contrast, the finance directors of unquoted firms did not bother about the signalling theory of dividends.

executives believed that changes in dividend payments conveyed information to the stock market. According to McCluskey et al. (2007), however, the market's reaction to earning announcements was more pronounced than its response to dividend news (Lintner, 1961; Watts, 1973; Lonie et al., 1996; McCluskey et al., 2006).[67] For example, one of the finance directors pointed out that: "…investors look at both earnings and dividends, but the prime number is earnings….the real story is earnings; the dividend is a peripheral signal." (p. 126)

Fifthly, the studies in this area have produced a mixture of responses about the impact of tax-preferences on dividend decisions. For example, according to the Brav et al. (2005), tax was the second most important factor in determining the dividend payment (Baker et al., 1985; Baker and Powell, 1999); indeed, some 21.1% of dividend paying firms considered the tax situations of their investors. This issue was even more important for unquoted firms which based their dividend policy on the taxation concerns of owners and the advice of lenders (McCluskey et al., 2007). McCluskey et al. (2007) documented that unquoted firms attached more importance to taxation issues when deciding on a dividend policy; some firms even paid a dividend only when it was tax efficient for investors to receive such a payment. The studies documented that management tried to maximise any tax benefits while satisfying different tax-related clients; although this consideration was not a priority in all cases (Baker et al., 1985; Baker and Powell, 1999; Brav et al. 2005). For example, Baker et al. (1985) found that, on average, 44.0% of respondents agreed that firms should keep the tax positions of their shareholders in mind when deciding upon changes to a dividend policy; however, the remaining respondents were indifferent about whether the taxation of dividends relative to capital gains should influence their company's dividend policy.

A number of 'other' influences on dividend behaviour have emerged from the analysis of the literature: industry behaviour, agency conflicts (free cash flow hypothesis),

[67] Inconsistent with these studies, Brav et al. (2005) documented that shareholders were more interested in dividend per share as compared to earnings.

clienteles, credit ratings and a firm's public or private status. For example, Baker et al. (1985) asserted that respondents also considered the payout ratios of other firms when contemplating changes to a company's current dividend level. There was an industry influence on dividend policy; the respondents to Baker et al.'s questionnaire indicated that the views of utilities were different from their counterparts in manufacturing and wholesale/retail possibly due to the fact that utilities operated in a regulated environment where high payout levels were the norm (Soter et al., 1996). However, Baker and Powell (1999) found no difference among the views of executives from three industries: utilities, manufacturing and wholesale/retail. In addition, McCluskey et al. (2007) found a difference of opinion among respondents from quoted and unquoted firms. Moreover, executives of public firms were more reluctant to cut a dividend as compared to private firms because of information asymmetry and agency issues (Brav et al., 2005).

In contrast to the predictions of the free cash hypothesis, Baker and Powell (1999) found that respondents generally disagreed with the view that dividend policy was a mechanism for monitoring managers. However, more than 90.0% did admit that paying a dividend compelled managers to seek more external financing which helped to reduce any agency problems which may have been present (Jensen, 1986). In contrast, Brav et al. (2005) documented that 87.0% of executives who replied to their survey denied that dividends were used to reduce cash and impose financial discipline on managers. Instead, Brav et al. (2005) documented that retail investors preferred a dividend as compared to a repurchase of shares while institutional investors were indifferent between the two (Baker et al., 1985).

The behaviour of individual companies also seems to affect a firm's dividend payment. For example, from 1978, a tendency of low dividend payments by US firms was

documented by Fama and French (2001). The authors studied data[68] for the period from 1922 to 1999 with a special emphasis on the years from 1978-99; a declining trend in dividend payment was initially observed; this trend occurred despite the fact that the number of listed companies in the US increased from 3,638 to 5,513. According to the authors, the three characteristics which influenced the dividend payment were firm profitability, company size and investment opportunities available (Darling, 1957).[69] In addition to these three characteristics, the authors also found that the tendency to pay a dividend had declined from 66.5% of the sample firms in 1978 to 20.8% in 1999. This low propensity to payout dividends among US firms towards the end of the 1990s was due to the listing of new firms as well as to a change in the behaviour of established companies where share repurchases was commonly employed.[70] Newly listed firms were characterised by low levels of profitability and sizeable investment requirements[71] because of high growth rates; as a result such companies were less likely to pay dividends. But this was not the only factor behind the decline in dividend payments by US firms. In fact, the authors observed a decline in dividend payments among organisations having both sizeable profits and relatively few investment opportunities; a behavioural change among management in favour of low dividend payouts was detected.

In contrast to Fama and French (2001), Chowdhury and Miles (1987) found that a high percentage of UK firms paid dividends over a period from 1970-1984. The authors studied a sample of 653 firms from 26 different sectors and documented that, on average,

[68] The data was extracted from the COMPUSTATE and CRSP. COMPUSTATE is a US database established by the Standard & Poor Company; the database has a wide range of data of financial, statistical and market information throughout the world. CRSP stands for Center for Research in Security Prices. As with COMPUSTAT, CRSP is also an US database established at the University of Chicago.

[69] Dividend payers were large, profitable and spent less on investment than other firms; non-payers were small, less profitable and invested more than other companies. Former dividend payers were even less profitable than those which had never paid out a dividend and also invested less.

[70] An increase in the number of new listed firms was observed on all three of the main US stock exchanges: NYSE, AMEX and NASDAQ. Share repurchases also contributed to the decreasing tendency to pay dividends.

[71] Baker and Powell (1999) documented that less than half of the respondents agreed that new investment requirements had little effect on dividend policy. Similarly, according to Brav et al. (2005), 47.0% of executives indicated that profitable investment opportunities influenced the dividend policy.

over 90.0% of the firms paid a dividend over the period. The dividend paying firms increased to 98.0% in the five years (1973, 1984, 1976, 1979, and 1980) and 1978 witnessed a peak in the percentage with 99.1% of the firms paying a dividend.

In conclusion, the findings of the various surveys provide a great deal of support for Linter's behavioural model of dividend policy. In addition, these surveys suggest that dividends act as a signal to outside stakeholders i.e., a dividend increase is generally viewed as a positive signal about future earnings while a dividend cut is perceived as a negative sign about the future earnings stream of the company (Baker et al., 1985; Baker and Powell, 1999; McCluskey et al., 2007). Furthermore, there is some support for the influence of tax on dividend policy within these surveys; however, this support is more prominent among unquoted firms (Baker et al., 1985; Baker and Powell, 1999; Brav et al., 2005; McCluskey et al., 2007).

3.4 The Signalling Hypothesis of Dividend Announcements

3.4.1 The Information Content of Dividend

The irrelevance argument has been criticised because of its assumption that information about companies is available to all investors. This 'information content' hypothesis suggests that in a world of information asymmetry, where managers know more about their company's future prospects than outsider stakeholders, a change in dividend may convey information about the future performance of the firm (Bhattacharya, 1979; Bhattacharya, 1980).

There are a number of reasons why dividend changes may act as a signal. In his seminal work, Linter (1956) argued that firms tended to increase their dividends once they were certain about the future earnings. So a dividend increase may be viewed as a signal because it reduces uncertainty about future earnings and the market value of a firm (Baker et

al., 1985; Baker and Powell, 1999). In addition, dividend changes are visible and freely communicated in the financial press. Further, because cash is being paid out, managers are "putting the firms' money" behind the signal. The logic behind this assumption is that outside investors perceive an increase in dividends as "good news" and a dividend cut as a "bad signal" about the future profitability of the firm (Pettit, 1972; Aharony and Swary, 1980; Lonie et al., 1996; McCluskey et al., 2006).

The information content of dividend was also alluded to in the pioneering study of dividend irrelevance by MM (1961). In a section entitled "The information content of dividends", the authors asserted that:

> "[A] change in dividend rate is often followed by a change in the market price…called the "informational content" of dividends…where a firm has adopted a policy of dividend stabilization with a long-established and generally appreciated "target payout ratio" investors are likely to (and have good reason to) interpret a change in the dividend rate as a change in management's views of future profit prospects for the firm. The dividend change, in order words, provides the occasion for the price change though not its cause, the price still being solely a reflection of future earnings and growth opportunities."(p. 430)[72]

In order to investigate the signalling potential of dividend announcements, several studies have looked at the behaviour of share prices around the time of dividend news. In an early investigation of this topic, Pettit (1972) conducted research to look at the information content of dividend changes in order to determine the relationship between dividend announcements and share prices. The author collected monthly data for about 1,000 announcements of dividend changes by 625 NYSE firms from January 1964 to June 1968; he also gathered daily data for 135 announcements over the period 1967-1969 in order to analyse the "observed changes" on abnormal share returns at the time of the dividend

[72] In the last sentence of this quotation, MM (1961) still supported their argument about the irrelevance of dividends on the grounds that the share price was a reflection of the future earnings as well as the growth opportunities of a company and a change in dividend might be used to "manipulate" the share price. However, the authors still believed in the information content of dividend about future earnings which in turn increased the share price of the firm

announcements. He categorised the dividend announcements into seven groups[73] and observed their effects on the abnormal performance of the sample firms' shares; he found that significant price changes took place during the announcement month (day) and the following month (day).[74]

Similar studies from the UK (Lonie et al., 1996) and Ireland (McCluskey et al., 2006) have arrived at the same conclusion. For example, Lonie et al. (1996) analysed the signalling characteristics of dividend announcements for 620 UK firms from January 1991 to July 1991. An event study was conducted to determine the abnormal returns around a dividend-announcement window.[75] The findings showed significant abnormal returns of 0.6% and 1.4% on the announcement date (day t) and the preceding day (day t-1) respectively. Moreover, the results showed a significant positive abnormal return of 2.0% for dividend-increasing firms; a significant negative abnormal return of -2.4% for dividend-decreasing firms and a significant positive abnormal return of 1.4% on day t-1 for the dividend-no-change firms.[76] Similarly, McCluskey et al. (2006)[77] calculated abnormal returns and excess returns for 41 days around the dividend announcement date. The statistics showed a significant positive abnormal (excess) return of 0.82% (0.85%) on the day when news of the dividend was published. Moreover, the average, excess and abnormal returns were

[73] Seven mutually exclusive classes of dividend announcements were studied: omissions, reductions (-1.0% to -99.0%), no changes, less than 10.0% increase, 10.0% to less than 25.0% increase, 25.0% or greater increase, and an initial payment. A small unusual return was found for the group having a dividend change of over 25.0%.

[74] The data also showed that there was a change in share prices one month prior to the announcement month and three days before the announcement day. The trend may be due to either insider information or a delayed response to the previous quarter's dividend announcement. If the trend was because of insider information, the results would violate the strong form of EMH and if it was due to previous quarter's dividend announcements, then it would not support the semi-strong form of the EMH that announcement information is impounded in share prices quickly. The findings of Aharony and Swary (1980) supported the semi-strong form of the EMH as share prices reflected the new dividend information quickly – usually on the day before and the day of announcement.

[75] The announcement date comprised of two days: t (the dividend announcement day) and t-1(one day prior to the dividend announcement day).

[76] By contrast to the theory, the dividend-no-change firms had a significant positive abnormal return instead of only a normal return; the authors suggested that this positive abnormal return could be due to the removal of uncertainty when no dividend change was announced.

[77] The data comprised of share prices of 50 Irish companies from 11 different sectors having 674 dividend and earnings announcements for the period 1987-2001.

significantly positive for dividend-increasing firms, insignificant for dividend-decreasing firms and positive for dividend-no-change firms.[78]

In contrast to these studies, Watts (1973) arrived at a different conclusion; he did not support the information content of dividend announcements based on his analysis of data for 310 US firms over the period June 1945 to June 1968. Using a regression model to predict future earnings, the author found a positive but insignificant relationship between current dividend changes and future variations in earnings[79]; the mean value of the coefficient of current dividend was 0.356 with a t-value of 0.341. Moreover, the author documented that the abnormal returns from monopolistic access to dividend information were uneconomical after transactions costs. In general, he concluded that "the information content of dividends can only be trivial." (p. 211)

Furthermore, Pettit (1972) documented "virtually no earnings announcement effect" (p. 1002). The F-ratios for earnings announcements had insignificant p-values of 0.9 as compared to a highly significant value of 18.0 for dividends announcements in the announcement month. The results clearly showed that "substantial information is conveyed by announcements of dividend changes…a dividend announcement…may convey significantly more information than the information implicit in an earnings announcement (p. 1002).

In contrast to Pettit (1972), Watts asserted that the current earnings were the dominant signal about future earnings compared to current dividend news; the mean value of the coefficient of current earnings was 0.6 with a t-value of 2.2. In line with Watts (1973) and

[78] The insignificant positive value for the dividend-no-change firms was contrary to the findings of Lonie et al. (1996).

[79] In order to study the information hypothesis of unexpected dividend changes, the author used the Fama and Babiak (1968) model for predicting future earnings. The result of this model was consistent with the previous regression model of a positive and weak relationship between unexpected changes in dividend and changes in future earnings.

contrary to Pettit (1972), Lonie et al. (1996) documented that earnings announcements were dominant when both items of news were published together:

> "Current earnings constituted the dominant signal to the capital market and the dividend announcement a partial, and often inferior, substitute signalling mechanism for managers to convey to investors their views about the future performance of their firms." (p. 48)

Similarly, ANOVA statistics by McCluskey et al. (2006) showed that the earnings per share variable explained a significant amount of abnormal returns (16.5, t-value = 0.0) while dividend per share variable had a positive but insignificant F-statistics (2.2 at t-value 0.1) at the 5.0% significance level. The findings suggested that earning announcements had a more pronounced effect on share prices than their dividend announcement counterparts (Watts, 1973; Lonie et al., 1996). Similarly, Watts (1973) documented that the effect of an unexpected change in earnings on share prices was more significant than an unexpected change in dividends. Watts (1973) conducted sign tests and found no significant change in unexpected earnings associated with an unexpected change in the current dividend level. The author asserted that:

> "The market is unable to distinguish between the changes in dividends due to information and changes due to noise in the dividend model, so the effect on the price of the firm's stock of an unexpected change in dividends is small." (p. 211)

Other researchers have suggested that both items of information jointly influence share prices; they argue that a change in the share price may be due to the joint announcement of dividends and earnings details. In order to answer this question, Aharony and Swary (1980) examined the information content of dividends separately from the information content of earnings in the same period. The authors collected data for quarterly dividend and earning announcements which were declared separately, at least 11 trading days apart from each other, for 149 NYSE firms over the period 1963 to 1976. Their results strongly supported the information content hypothesis that "changes in quarterly cash dividends provide useful information beyond that provided by corresponding quarterly

earnings numbers" (p. 11). The authors also found that the market response to a decrease in dividends was more pronounced than the reaction to a corresponding increase in quarterly cash dividends (Brav et al., 2005).

In summary, dividend announcements appear to contain information about future earnings but earnings news seems to be dominant signal in cases where the two items of information are announced jointly.

3.4.2 Interaction Effect of Dividend and Earnings Announcements

Aharony and Swary (1980) analysed the isolated announcements of dividend and earnings in the US. However, in many countries (such as the UK, Ireland and Pakistan), the dividend and earnings announcements came to the market at same time (Lonie et al., 1996; McCluskey et al., 2006; Mubarik, 2008). So attempting to study the impact of the dividend announcement without considering any confounding earnings signal may be problematic (Kane et al., 1984; Easton, 1991; Lonie et al., 1996; McCluskey et al., 2006). For this purpose, Kane et al. (1984) investigated the impact of the joint news of quarterly dividends and earnings on share prices for a sample of 352 announcements between the fourth quarter of 1979 and the second quarter of 1981. They studied only those announcements of dividends and earnings separated by less than 10 days in order to investigate the corroboration effect of the two signals. The authors divided the earnings and dividend announcements into six groups: DIEI (dividend-increase earning-increase), DIED (dividend-increase earning-decrease), DDEI (dividend-decrease earning-increase), DDED (dividend-decrease earning-decrease), DNCEI (dividend-no-change earning-increase) and DNCED (dividend-no-change earning-decrease).

A non-parametric sign tests showed a statistically significant corroboration between the dividend and earning changes. When regression analysis was employed, all five dummy[80] variables for the different dividend-earnings groups were positive and significant at 1.0% level; the only exception to this generalisation related to an insignificant value for the DDEI dummy variable. The intercept term which was used as a proxy for the DDED group had a significant negative value of -0.1 with a t-value of 3.5. When the two signals re-enforced each other, the abnormal returns were larger and highly significant. A test of the corroboration effect showed an F-statistic of 2.6 which was significant at the 1.0% level. Thus the authors concluded that the: "interaction or corroborative effect was statistically significant" (p. 1098).

A subsequent study of the interaction effect between earnings and dividends announcements was conducted by Easton (1991) for the Australian market, Lonie et al. (1996) for the UK and McCluskey et al. (2006) for Ireland. Easton (1991) analysed the interaction effect between dividends and earnings using a regression model.[81] The author used abnormal returns as his dependent variable and unexpected earnings, unexpected dividends and dummy variables as independent variables to examine interactions between the two signals.[82] The results clearly supported "the existence of an interaction effect" (p. 264) since the F-statistic of 4.1 was significant at the 95.0% confidence interval. All the dummy variables had positive values; indeed, two dummies (EIDNC, EIDI) had values which were significant at the 99.0% confidence interval.

More recently, Lonie et al. (1996) studied the interaction effect between dividend and earning announcements for 620 UK firms from January 1991 to July 1991.[83] The results

[80] Five dummy variables were used for these groups except for the DDED (-,-) firms in the regression model to avoid multicollinearity. The constant in the regression model was used as a proxy for the DDED group.

[81] The author examined a sample of 896 half-yearly dividend and earnings announcements for 339 industrial companies over the period 1978-80.

[82] The author used the same 6 dummy variables that had been employed by Kane et al. (1984).

[83] The authors used regression models to test the interaction effect between dividends and earnings announcements while including dummy variables to measure the interaction effects. The authors used the same six dummy variables that had been employed by Kane et al. (1984).

showed a highly significant interaction effect between earnings and dividend signals.[84] Similar to Kane et al. (1984), all five dummies had positive coefficients which were statistically significant except for the DDEI group; thus, relative to the DDED group (which was subsumed within the constant term), abnormal returns were higher where either the dividend or earnings increased or did not change.

In line with the previous studies, McCluskey et al. (2006) analysed the joint effects of dividend and earnings announcements since both news items were published on the same day in Ireland; they investigated whether one of the two signals was dominant.[85] The ANOVA statistics for the joint dividend-earnings variables showed that announcement day abnormal returns for the DDEI sub-group was 0.7% as compared to 0.5% for DIED sub-group. Similarly, the DNCEI sub-group earned significant positive abnormal returns of 1.5% as compared to the negative abnormal returns of -0.9% for DNCED sub-group. Moreover, F-statistics showed that the earnings per share variable (16.5, t-value = 0.0) and the dividend-earnings interaction variables (4.7, t-value = 0.009) were significant at the 5.0% level. The significant value for dividend-earnings interaction variable clearly indicated that abnormal returns were different from zero when the dividend and earning announcements re-enforced each other.

In conclusion, these studies supported the information content of dividend hypothesis although they suggested that any signal depends upon the interaction effect between dividend and earnings announcements.

[84] The interaction 'F' statistic had a highly significant value of 3.9.

[85] The data sample comprised of 50 companies from 11 different sectors having 674 dividends and earnings announcements for the period 1987-2001. In order to analyse the combined effects of the earnings and dividend news, the data were divided into six sub-groups. The authors used the same six dummy variables as by Kane et al. (1984).

3.4.3 Dividend Cut as a Positive Signal

Previous studies have supported a version of the dividend information content hypothesis which argues that a dividend increase is a positive sign about future earnings which leads to a rise in share prices; moreover, a reduction in dividends leads to a decrease in share prices (Pettit, 1972; Aharony and Swary, 1980; Lonie et al., 1996; McCluskey et al., 2006). In contrast to this version of the "information content of dividend policy", some academics (for example, Woolridge and Ghosh, 1985) have introduced an "alternative information hypothesis" concerning dividends which is based on the idea that a dividend increase signal may signal a lack of profitable investment opportunities while a dividend cut may be interpreted as signal of growth prospects. De Angelo and De Angelo (1990) highlighted that poor earnings were the main reason for a dividend cut or omission while studying 80 financially distressed US firms over the period 1980-85. Moreover, the authors documented that dividend-paying firms were usually more inclined towards a dividend cut instead of a dividend omission.

Woolridge and Ghosh (1985) collected and categorised announcements of dividend cuts for 408 firms over the period 1971 to 1982 and split the sample into three groups: a dividend cut with a simultaneous loss or decline in earnings group; a dividend cut with a prior loss or decline in earnings group and a dividend cut with a simultaneous or prior rise in earnings group. They found that, on average, the market reacted negatively to a dividend cut at the beginning. However, share prices improved by 9.0% in the following quarter and 16.0% after one year for dividend-cutting firms where the announcement was accompanied with news of profitable investments. On average, share performance even increased by 10.0% for dividend cut firms which also published news of a decrease in earnings as well.[86] The

[86] They also observed that simultaneous announcements of a stock dividend or share repurchases along with dividend cuts were used as a signalling mix to mitigate the negative effect of a dividend cut on share prices.

authors were proponents of the view that the market needed to be educated about such dividend cuts:

> "In order to disarm investors' scepticism and thus blunt the typical adverse market reaction to announcements of dividend cuts, management must carefully educate the market about its prospects." (p. 464)

In order to examine this argument, Soter et al. (1996) analysed the case of a dividend cut announced by the Florida Power & Light Company (FPL). On May 9, 1994, FPL announced its first ever 32.0% reduction in quarterly dividend payout from 62 cents to 42 cents per share. This dividend was cut in order to increase the firm's financial flexibility and because of deregulation in the utility industry which had changed FPL from a low-risk regulated company to a riskier competitive firm.[87] Simultaneously, FPL also announced a $10 million share repurchase scheme over the next three years as a substitute to the dividend payment for its shareholders. On the day of this announcement, the share price of FPL fell by 20.0%. However, after educating investors/analysts about the basic motives behind the dividend cut, the shares recovered quickly and increased by 30 cents at the end of announcement month, by 23.8% after one year and by 52.9% two years after the dividend cut.

In the longer term, the FPL case study supports the MM proposition of dividend irrelevance – that the dividend level is immaterial when determining the long-term value of firm. This case study also concluded that a dividend cut did not automatically lead to a reduction in a firm's share price. It depended upon the environment and financial policy which the company faced. Summing up the FPL case the authors pointed out that:

> "It suggests that while there may not be a single dividend payout ratio that maximizes a company's value, the wrong policy may end up reducing value….[while the] right dividend policy for an individual company depends primarily on the business environment in which the firm operates;….making the right dividend policy is not a trivial undertaking." (p. 193)

[87] Deregulation included allowing private enterprises to enter the utility sector making the industry more competitive.

In summary, a dividend cut may not affect a company's share price negatively. Instead, the authors suggest that it is the motives behind the dividend cut which determine whether or not the cut is to fund positive investment opportunities or a signal of a decline of future earnings.

3.5 Other Factors Affecting Dividend Policy

There are a number of other factors which appear to affect the dividend policy of a firm.

3.5.1 Ex-date Effects and Clientele Effects

In their classic 1961 article, MM documented that dividend was irrelevant in a world without taxes, transaction costs and other imperfections. However, in the real world, taxes and transactions costs exist and hence affect the value of a firm (Litzenberger and Ramaswamy, 1979; Litzenberger and Ramaswamy, 1982; Poterba and Summers, 1984; Lasfer, 1995; Bell and Jenkinson, 2002). This section analyses the impact of taxes on share valuation. According to Brealey et al. (2008), when the effective rate of taxation on dividend income is more than the effective rate on capital gains, companies tend to pay less dividends. This is because shareholders attempt to avoid dividend income to benefit from the tax advantage associated with the capital gain. This strand of the literature has examined investors' responses to actual dividend payments (rather than announcements) by calculating share returns on ex-dividend days. This approach enables researchers to explore the impact of the relative tax treatment of dividends and capital gains on share valuation. In addition, this section elaborates on the clientele hypothesis which states that investors in certain tax brackets tend to gravitate towards certain types of dividend-paying firms.

One of the first studies in the area was conducted by Poterba and Summers (1984). They examined the impact of two major changes in the tax regime that operated in the United

Kingdom in the years 1965 and 1973. In 1965, the government introduced capital gains tax for the first time; while in 1973 the government introduced an integrated corporate tax system in which tax credits were allowed on dividend income for advanced corporation tax (ACT) already paid on corporate profits. The tax credit reduced the overall taxation on dividend income relative to an equivalent capital gain. The authors examined daily and monthly data for the period 1955-1981.[88] The findings showed that, on average, the tax burden on dividends reduced from 0.5 to 0.3 between regime I (1955-1965) and regime II (1965-1973) and reduced further from 0.4 to – 0.2 between regime II and regime III (1973-1981). Only the latter change was found to be significant, suggesting that while the introduction of capital gains tax had not affected investors' valuation of dividends, the introduction of ACT had.[89] Similar conclusions were arrived at by Lasfer (1995) who examined the impact of the 1988 Income and Corporation Taxes Act (ICTA) in the UK which significantly decreased the differential between the taxation on dividends and capital gains.[90] The results revealed that ex-day returns significantly decreased post-ICTA from 0.4% to 0.3% with a drop-off ratio substantially increasing from 0.5% to 0.7%.[91] The author also observed that the ex-day return was positively related to dividend yield which strengthened the tax hypothesis that share prices were affected by changes in taxation.[92]

[88] The data comprised of the 16 largest UK-listed firms. The data were taken from the London Business School share price tape and the Financial Times.

[89] Both the daily and monthly data supported the above results and showed that changes in dividend taxation had a significant effect on the share prices and exhibited a positive relationship between dividend yields and market prices.

[90] The author conducted an event study using 10,123 ex-div observations from April 6, 1985 to April 5, 1994 taking data from both MicroView and DataStream.

[91] The drop-off ratio is the ratio of the ex-dividend day price drop to the dividend; higher drop-off ratios suggest higher dividend valuations.

[92] As in previous studies, the author did not find any support for the short-term trading hypothesis; short-term traders did not appear to attempt any "dividend stripping" in a way that might impact upon the study's findings. Moreover, the ex-div day premium and tax credit was not enough to cover transactions costs. One limitation of the study was that the significance of the findings might be overstated as the ex-day return was computed for "average" investors. In many large UK firms, major investors (like pension fund, charity bodies etc) are tax exempt. Lasfer (1995) acknowledged that, "taxation is not the only factor that is affecting ex-day returns" (p. 887). The other factors include the number of days in the London Stock Exchange account.

More recently, Bell and Jenkinson (2002) studied ex-div day returns for UK firms after the radical change in taxation law during 1997; this change raised the effective tax rate on the dividend income of pension funds by approximately £5 billion.[93] The empirical results[94] showed that the drop-off ratio fell from 0.9 to 0.7 for the whole sample. However, for the firms with the lowest dividend yield, the ratio change was actually positive (although insignificant), whereas for the highest yield firms it fell from 1.1 to 0.9, a significant decline of 0.2. The results, therefore, supported the joint hypothesis that pension funds were the marginal investors and that taxation had a substantial effect on share prices. Contrary to the Poterba and Summers (1984) and Lasfer (1995), the authors found evidence of a clientele effect; as the drop-off ratio was lower (higher) for low-yield (high-yield) firms. However, according to Lasfer (1995), a drop-off ratio equal to the amount of the dividend was only observed in lowest-yield group after the ICTA reform.

Long (1978) found that tax is not the only variable affecting the dividend decision; indeed, it also depends upon the preferences of shareholders for cash or liquidity. Long (1978) examined the unique case of the Citizens Utilities Company (CU)[95] where investors had a choice between receiving a cash dividend or a stock dividend of equivalent value. He concluded that investors attached more value to cash dividends as compared to an equal

[93] Pension fund companies comprised of almost one-third of the whole UK equity market. Before 1997, these investors were given a tax credit reflecting ACT paid on corporate income. These tax-exempt investors could therefore claim a refund. Pension fund companies benefited from this system which created an obvious incentive for investment in high dividend yield firms.

[94] The authors examined 8,837 ex-div day observations from January 1, 1995 to December 31, 1999 thereby allowing an examination of changes before and after the tax law was altered. The data were analysed for the whole sample and across different sub-samples based on dividend yield and market capitalisation.

[95] In December 1955, the management of CU announced a "duel-series stock plan". Under such an arrangement, existing common shareholders were allowed to transfer their investment into two new series of shares. Both series were similar in all aspects except dividend payouts. Series A would receive a stock dividend and series B would receive a cash dividend. Due to Internal Revenue Service (I.R.S) special rules, the stock dividend of series A was not taxed as ordinary income but was treated as a capital gain. By contrast, the dividend for series B was taxed as income. Series A were convertible into series B but the reverse was not allowed. The author studied monthly data for the period 1956-1976 and found that the dividend per share on series A was 0.0245 while the relevant number for series B was 0.0233. The author also documented that dividend ratios were higher than price ratios of series A and series B. From 1962 to 1976, 90.0% of the dividend ratios were higher than 1.07 whereas 80.0% of price ratios were lower than 1.07. So the price ratio did not exactly correspond with the dividend ratio.

amount of stock dividends when he stated: "…there is significant demand for cash dividends in spite of the generally lower after-tax return to investors holding claims to these dividends" (p. 263). However, Poterba (1986) found that investors gave more importance to stock dividends over cash dividends on ex-dividend days when he studied the same CU case for the period 1965-84. The empirical results of Long (1978) suggested that investors preferred cash dividend as compared to an equal amount of stock dividends. If this was the case then the decline of prices on ex-div days should have been be equal to the full amount of the dividend payments. However, Poterba (1986) found that, on average, cash-dividend shares declined by 95.0% as compared to a 75.0% decline for stock-dividend shares. According to Poterba (1986):

> "The ex-day results suggest that a one dollar cash dividend on class B shares is valued less than a one dollar stock dividend on Class A shares." (p. 402)

3.5.2 Dividend and Value

In their seminal work, MM (1961) stated that dividend was irrelevant to the value of a firm in a world without taxation. However, in the presence of taxation several authors have concluded that dividends matter. In this regard, researchers can be split into two groups: those who support the notion of dividend irrelevance (Black and Scholes, 1974; Miller and Scholes, 1982); the others who argue that dividends affect the value of the firm (Litzenberger and Ramaswamy, 1979; Litzenberger and Ramaswamy, 1982). One way to test these two theories is to analyse directly the effect of dividend payout on share prices. In all of the studies in this area, authors mainly focus on taxation effects and try to avoid the information content of dividends when establishing the relationship between dividends and share prices.

Black and Scholes (1974) were one of the first to study the impact of dividend policy on the expected returns for a company's shares. They used a before-tax version of the Capital Asset Pricing Model (CAPM) by adding the dividend payout term and investigated annual

data from CRSP for the period 1926-1966.[96] They found that the co-efficient of the dividend yield variable was insignificant at 0.0009 with a t-value of 0.9.[97] The authors suggested that a corporation should craft whatever dividend policy they wished on the grounds that "changes in dividend policy will have no permanent effect on its stock price." (p. 21)

The work of Black and Scholes (1974) was criticised on the basis that they used annual data for portfolios without differentiating between ex-dividend and non-ex-dividend months; thus their findings might be biased because they contained information effects about dividend policy. In order to address these concerns, several follow-up studies were conducted. For example, Litzenberger and Ramaswamy (1979) analysed the same relationship for monthly data over the period 1931-1977.[98] The authors found a significant positive relationship between expected return and dividend yield. The value of the coefficient on the dividend yield variable was 0.2 with a t-statistic of 8.6. The empirical data showed that the impact of a dividend payment on the before-tax expected return was positive for both ex and non-ex dividend months, however, the effect in ex-dividend months was more pronounced than in non-ex-dividend months.[99]

In response to Litzenberger and Ramaswamy (1979), Miller and Scholes (1982) studied the relationship between dividend yield and return to analyse whether any relationship was due to an information effect or taxation for the period 1940-1978.[100] The

[96] The authors constructed 25 portfolios of shares from the whole sample and regressed the returns on the beta risk as well as on the dividend yield term.

[97] The subgroup data also showed the same insignificant relationship between dividend yield and expected returns. So the expected returns on low-yield securities were not significantly different from those of their high-yield counterparts. The authors concluded that an investor "…doesn't even know whether high yield stocks have higher or lower expected return than low yield stocks with the same risk. So it might make sense for him simply to ignore yield in making his investment decisions."(p. 17)

[98] In order to minimize the effect of any information content of dividend announcements on their findings, they used the level-revised monthly dividend yield. The level-revised method decided to take the dividend of prior month if the announcement month was prior to the ex-dividend month, and took the last regular dividend in the case where the announcement and ex-dividend month was same.

[99] A clientele effect was also found in the paper where shareholders in low tax brackets opted for high yield share and vice versa.

[100] They used different definitions of dividend yield in order to avoid the short-term definition of dividend yield. The short-term definition of dividend yield only comprised of short-term taxation on dividend and ignored the long-term capital gain's taxation.

coefficient of the dividend variable was 0.3 (t-value was 10.2) when actual dividend data were included in the regression and 0.2 (t-value was 6.1) for level-revised dividend yield data. This decline in the size of the dividend coefficient as well as in its significance was due to the information content of dividend. If the dividend yield of 12 months ago was included for any month where a dividend payout was announced, the coefficient on the variable fell to 0.03 (t-value = 1.3); thus the authors argued that there was an insignificant relationship between dividend yield and expected returns. These results showed that after correcting for information effects, the impact of dividend on returns was insignificant. Using dummy variables for the announcement month prior to the ex-dividend month, the authors found a positive but insignificant co-efficient of 0.3 (t-value = 1.1) for the dividend yield variable. Thus, they concluded that the tax effect was too small to be considered significant. The authors argued that "…yield related tax effects in our aggregate sample are obscured…" (p. 1138)

In order to answer this question of whether the effects of dividend on share prices are due to tax effects or information effects, Litzenberger and Ramaswamy (1982) measured the relationship between share price returns and dividend yield for the period 1940-1960 using the US data. The authors used a prediction rule for the dividend variable based on the past 60 months of dividend payments. The statistics showed that the coefficient of the dividend yield variable was 0.2 (t-value = 8.8) for the level-revised dividend variable, 0.1 (t-value = 5.4) for the prediction rule dividend yield and 0.1 (t-value = 4.4) for a subsample which omitted the observation if a dividend had been announced in the month. All the estimated coefficients were positive and significant. The authors concluded that empirical evidence was "…consistent with the tax-clientele CAPM: the data indicate that there is a positive but non-linear association between common stock returns and dividend yield." (p. 442)

3.6 Signalling Theory in South Asia

Major countries with active stock markets in the South Asia region include: Bangladesh, India, Pakistan and Sri Lanka.[101] All these countries are emerging stock markets (Standard & Poor's Emerging Market Factbook, 2009) which are different from their developed counterparts where most dividend studies have been conducted. Glen et al. (1995)[102] analysed the dividend policies of various emerging markets and documented that: "dividend philosophy in emerging markets seems to be influenced by a number of factors and there is significant variation across countries, firms and time" (p. 24). However, the emerging markets do seem to share some common practices in relation to dividend policy; for example, Glen et al. (1995) asserted that:

> "Emerging market firms often do have a target payout ratio, like their developed country counterparts, but they are generally less concerned with volatility in dividends over time and, consequently, dividend smoothing over time is less important." (p. 24)

In general, all the South Asia countries and especially Pakistan, Bangladesh and India are "proximate in an economic and geographical sense as well as sharing a strong common historical heritage and close ties" (Narayan et al., 2004, p. 420). Therefore, a review of dividend studies from these South Asian countries will expand our understanding about the share price reaction to the dividend announcements for companies in this geographic region of the world (Lamba, 2005). A significant amount of literature has been published in these countries.

In the Bangladeshi market, Uddin (2003) analysed the effect of dividend announcements on shareholder value for 137 firms listed on the Dhaka Stock Exchange (DSE) from September 2002 to October 2003. The author used market adjusted abnormal returns (MAAR), cumulative abnormal returns (CAR) and parametric tests over a 60-day

[101]Other countries in South Asia which do not have active stock markets are: Nepal, Maldives and Bhutan etc; these are not studied here.

[102] The authors studied the dividend policies of companies in the following countries: Chile, India, Jamaica, Mexico, Philippines, Thailand and Turkey.

period around the dividend announcement date. The results showed that the mean MAAR value was positive but insignificant at 0.8% on the announcement date; it was also statistically significant on day t-3 and day t-4 prior to the dividend announcement date with mean MAARs of 2.0% and 2.9% respectively.[103] In addition, there was no significant gain in the post-announcement period. Thus the author concluded that "shareholders gain only about 4.0% value about three to four days before the announcement of dividend but [have] no significant value gain on the announcement day" (p. 10). By contrast, the CAR value rose from -4.9% on the day t-30 to a level of 10.5% on the dividend announcement date but dropped to -19.5% on the day t+30. On average, the results indicated that the dividend news did not seem to affect the share price in a coherent fashion; hence Uddin (2003) argued that the"...DSE tends to support Miller and Modigliani's (1961) hypothesis of dividend irrelevancy." (p. 15)

Similar results were documented by Rishma et al. (2007) for a larger sample of 245 dividend paying shares listed on the DSE over the period January 2003 to December 2005.[104] Their results showed that the mean MAAR was not significantly different from zero on the day of, and before, the announcement date.[105] Instead, the MAAR value was slightly significant on a number of days during the post-announcement period. The CAR values also showed similar findings. The authors therefore concluded that:

> "....the effect of a dividend announcement is not strong in the DSE; rather it [seems that].....shareholders will not gain significant value in the period preceding as well as on the dividend announcement day, yet they can gain value in the post-announcement period." (p. 4)

Contrary to the findings for the MAAR and CAR, the RTVA documented values of 18.2 (23.0) on the day of (the day after) the news; these were 166.2% and 237.6% larger than

[103] The findings suggesting some leakage of the news to the market before the dividend information was officially published (Pettit, 1972).
[104] MAAR, CAR, t-test and Relative Trading Volume Activity (RTVA) were used to examine the market response for the 60-day period around the dividend announcement date.
[105] The MAAR value on the dividend announcement date was -0.2%.

the average RTVA during the pre-announcement period. This increase in security trading volume around the announcement day showed that dividend announcements had information content in that they caused investors to trade the securities and possibly alter the compositions of their portfolios. The authors deduced that "...investors do shift their security position at the time of dividend announcement.....there is possibility of information content in dividend announcements in the DSE." (p. 9)

In line with the previous studies, Mollah (2001) analysed the security price reaction to the dividend announcements for a sample of 380 cash dividend announcements by 153 non-financial firms listed on the DSE over the period 1988-91. The authors documented insignificant abnormal returns on the announcements date; instead, most of the returns fell after the announcements dates. The author argued that:

> "There is no significant impact of dividend announcements on the security prices of an emerging market because as insiders trade in the market, so, the information used to be adjusted with the share prices before announcement." (p. 236)

In contrast to the findings of Mollah (2001), Uddin (2003) and Rishma et al. (2007) for the Bangladeshi market, Thirumalvalavan and Sunitha (2006) found that dividend announcements had a positive impact on share prices in the Indian market.[106] The results showed that, on average, the CAR was positive around the 10-day window surrounding dividend announcements by the Indian firms; indicating the existence of a positive signalling impact on share prices. Similar results were also found by Azhagaiah and Priya (2008) while analysing the impact of dividend policy on shareholder wealth for the organic and inorganic chemical companies of India.[107] The results showed a significant positive relationship

[106] The sample consisted of 22 share repurchases and 21 dividend announcements by 22 firms listed on the Bombay Stock Exchange (BSE) from January 2002 to December 2004.

[107] The authors only studied a sample of 19 organic and 9 inorganic chemical firms listed on the BSE over the period 1997-2006. Market price per share was used as a dependent variable and dividend per share, retained earnings per share, lagged price earnings ratio and lagged market price were included as explanatory variables. The dependent variable, market price per share (MPS) or market value, was used as a proxy of shareholder's wealth and the independent variable, dividend per share (DPS), was used as a proxy for dividend policy.

between dividend payments and shareholder wealth for both organic and inorganic chemical firms[108] (Nishat, 1992; Kanwer, 2002; Zaman, 2007).

3.7 Dividends in Pakistan

A number of prior studies have investigated the dividend policies of Pakistani companies (Nishat 1992; Nishat and Bilgrami, 1994; Nishat and Irfan, 2001; Kanwer, 2002; Kaleem and Salahuddin, 2006; Naeem and Nasr, 2007; Zaman, 2007; Mubarik, 2008; Ahmed and Javid, 2009). However, the empirical work contained therein employs diverse methodologies and arrives at different conclusions; Table 3.1 summarises the key studies conducted in Pakistan regarding the determinants of dividend policy, while Table 3.2 outlines the results of work investigating the signalling impact of dividend policy in Pakistan. For a better understanding of work in this area, the literature about dividend policy in Pakistan is divided into two parts: (i) determinants of payouts and (ii) payouts and share returns.

3.7.1 Determinants of Payouts

A number of recent studies have examined dividend payout policies in Pakistan using the framework of Lintner (1956). For example, Nishat and Bilgrami's (1994) evidence supported Lintner's model, suggesting that "in Pakistan, last year's dividend payment and net profit after tax play a significant role in the present dividend decision" (p. 339). The authors used regression[109] analysis taking DPS as the dependent variable for a sample of 225 firms listed on the KSE over the period 1980-86; they documented the existence of a partial adjustment process as companies moved to a new dividend payout level (Baker et al., 1985;

[108] Other explanatory variables like retained earnings, the lagged price earnings ratio and lagged market price had significant positive relationships with current market price in both organic and inorganic chemical firms.

[109] Dividend per share was regressed against lagged dividend per share, lagged net profit; current and lagged retain earnings, net liquid assets, size and the change in equity holdings, along with dummy variables for industry effect. The dummies were: DPU for private and public sectors; DCT for textile; DCH for chemical; DEN for engineering; DSA for sugar; DPD for paper and board; DCM for cement; DFE for fuel and energy; DJU for jute; DVA for vanaspati and allied and TVA for trading volume.

TABLE 3.1 Studies of the Determinants of Dividend Policy in Pakistan

Author(s)	Sample	Observations	Methods	Findings
Nishat and Bilgrami (1994)	225 firms listed on the KSE over the period 1980-86	175	Regression model using Dividend Per Share as dependent variable	• Last year's dividend payment and net profit after tax played a significant role in the present dividend decision. • The authors documented the existence of partial adjustment plans. • Large size firms, firms with foreign ownership and private sector firms declared higher dividend payouts.
Naeem and Nasr (2007)	108 firms listed on the KSE for 1999-2004	540	Regression model using dividend payout ratio as dependent variable	• Last year's dividend payout was the most influential factor in dividend policy. • Current profit was not important in dividend decision. • Variability and instability in dividend payout trend.
Ahmed and Javid (2009)	320 non-financial firms listed on the KSE for 2001-06	1,920	Regression model using current dividend yield as dependent variable	• Followed Lintner's model target payout ratios ranging from 25% to 39.0% with firms taking from between 1.6 to 2.4 years to get to this target level. • Firms relied more on the current earnings than past dividend to fix their dividend payments.
Khalid (2010)	374 firms listed on the KSE for 1988-2008	7,854	Regression model	• Profits as being the main dividend determinant • Previous payout levels, firm size, reserve levels and gearing ratios all had an impact on dividend policy.
Afza and Mirza (2010)	100 firms listed on the KSE for 2005-2007	300	Regression Analysis	• Profit does play a role, but • The key determinants of dividends are ownership structure, cash flow and firm size.

Note: The table provides a summary of the previous studies that have been conducted in Pakistan studying the determinants of dividend policy.

Baker and Powell, 1999). Moreover, the authors concluded that there was actually a wide range of identifiable influences on payouts; for example: "…. large size firms, firms with foreign ownership and private sector firms declare[d] higher dividend payouts" (p. 344). By contrast other explanatory variables such as last year's profit, last year's retained earnings, net liquid assets and the change in equity holdings had no significant relationship[110] with dividends.[111]

A more recent study by Ahmed and Javid (2009) documented that Pakistani firms generally followed Lintner's model; using regression[112] analysis with the current dividend yield as the dependent variable for 320 non-financial firms listed on the KSE over the period 2001-06. The authors suggested that Lintner's model described the dividend behaviour of the Pakistani firms. Their results highlighted target payout ratios ranging from 25.0% to 39.0% with firms taking from between 1.6 to 2.4 years to get to this target level.[113] Ahmed and Javid's (2009) results from the regression model indicated that last year's dividend yield, current net earnings, ownership concentration and liquidity were all significantly positively linked with dividend yield[114]; however, they concluded that: "... Pakistan's listed firms rely more on the current earnings than past dividend to fix their dividend payments." (p. 122)

[110] Theoretically, and empirical work from Fama and Babiak (1968), suggest that last's year profit would have a positive impact on dividends; large value for last year's retain earnings would suggest more retained earnings and hence more dividend payments; high net liquid assets mean less liabilities and hence a high dividend being paid; and an increase in equity-holding may motivate the firms to declare more dividends because of confidence in generating funds through equity.

[111] The dummy variables used for different industries showed that firms belonging to chemical, engineering, fuel and energy, sugar and vanaspati and allied industries had relatively high dividend payouts whereas the textile, paper and board, and jute industries had relatively low dividend disbursements.

[112] The authors extended Lintner's model using current dividend yield as the dependent variable and last year's dividend yield, current net earnings, ownership structure, market value, liquidity, investment, size, sales growth, leverage, and market to book value as explanatory variables.

[113]The speed of adjustment was high compared to that in developed stock markets like the US; however, the figures were consistent with evidence in other emerging stock markets such as the Tunisian exchange (Belanes et al., 2007, p. 162; cited in Ahmed and Javaid, 2009). The low target payout ratio and high speed of adjustment together suggest a relatively low level of smoothing and a sizable amount of instability in dividend policy.

[114] The results also showed that size, investment opportunities and the market to book value had significant negative relationships with dividend yield, while the coefficients for growth and leverage were also insignificantly associated with dividend policy.

Similarly, Khalid (2010) reported profits as being the main dividend determinant for KSE firms from1988-2008, although previous payout levels, firm size, reserve levels and gearing ratios all had an impact, as did financial liberalisation (in encouraging firms to employ equity financing).

In contrast to these studies, Naeem and Nasr (2007) suggested that current profitability was not an important factor in the determination of Pakistani companies' dividend policies. Using a regression[115] model with 'dividend payout ratio' as the dependent variable, they found that last year's dividend payout was the most influential factor on a company's current dividend policy for the sample of 108 firms[116] listed on the KSE over the period 1999-2004. In contrast to Lintner's original US evidence, current profitability was not an important factor in the analysis; this variable had a positive relationship with dividends that was only significant at the 10.0% level for the whole sample and insignificant for the sub-samples.[117] Moreover, the authors documented a great deal of variability and instability in the dividend payments (Ahmed and Javid, 2009). The dividend per share data for the whole sample showed that on average 34.0% of firms did not pay any dividend with most firms (38.0%) paying between 0.0% and 2.5% of earnings to share holders.[118] More recently, Afza and Mirza (2010) analysed data for KSE firms from 2005-2007 and reported that, while profit does play a role, the key determinants of dividends are ownership structure, cash flow and firm size.

[115] The authors used a regression model to determine the relationship between the dividend payout ratio and a set of seven independent variables: MB – market to book value ratio for investment opportunities; CR – current ratio for liquidity; DR – debt ratio for leverage; FR/CTA for Asset structure and tangibility; LOS – log of sales for size of a firm; DPOP – dividend payout of previous year; and ROI – return on investment for profitability of a firm.

[116] The 108 listed firms consisted of 77 non-financial and merchandising firms and 31 financial firms.

[117] The market to book value ratio, the current ratio and the debt ratio had a significantly negative impact on dividend payout, suggesting that high levels of investment opportunities, high liquidity and high leverage tended to be associated with low payout levels. Other variables such as asset tangibility and the change in total assets had insignificant regression coefficients as did firm size.

[118] The statistics for the industry averages showed that the highest payouts occurred for Oil and Gas Marketing and Exploration firms while the lowest payments were made by Vanaspati and Allied industries.

What all the previous studies have in common, however, is the aggregation of large samples of numerical data; given the unique nature of many of the rules surrounding disbursements to shareholders in Pakistan and the contradictory nature of the findings, it is surprising that little or no attempt has been made to discuss the dividend decision-making process with those involved in practice; the present study is intended to address this omission.

3.7.2 Payouts and Share Returns

A number of studies have looked at the impact of dividends on the share prices of Pakistani firms. For examples, Nishat and Irfan (2001) used this form of analysis to reject MM's (1961) dividend irrelevance theory for 160 firms listed on the KSE over the period 1981-2000. The authors divided their sample period into a pre-reform (1981-90) and a reform era (1991-2000),[119] and found that dividend policy did affect share prices of Pakistani firms in a substantial manner. The authors used dividend yield and dividend payout as a proxy for dividend policy; these were included as independent variables along with earnings volatility, size, long-term debt and growth in a regression model that attempted to explain price volatility. The results[120] showed that both dividend yield and dividend payout had a significantly negative impact on price volatility.

Similar results were also documented by Nishat (1992) who investigated the joint effect of dividend and retained earnings behaviour on the prices of shares listed on the KSE

[119] The reforms during 1990 focused on opening the market for foreign investors; this resulted in market competition which in turn increased the share price volatility. Reforms to dividend policy included a tax ceiling on cash dividends, tax exemptions for right and bonus share, methods of shifting from a cash dividend to a stock dividend being permitted and flexibility in remitting market profits abroad; for detail see Section 2.5.2.

[120] The other statistics also showed that size and leverage had a significant positive impact on price volatility across the period as a whole. However, the coefficient on the size variable was negative during the pre-reform period (1981-90) and positive during the reform era (1991-2000). The positive coefficient documented for size was consistent with certain other studies of the KSE (Nishat, 1996 and Irfan and Nishat, 2003), although it contradicted the conventional theory whereby large firms had lower share price volatility than small firms because of differences in the market efficiency. The earnings volatility coefficient was negative but only significant during the reform era. The authors concluded that their findings: "...are consistent with the behaviour of emerging markets." (p. 11)

TABLE 3.2 Studies of the Signalling Effect of Dividend Policy in Pakistan

Author(s)	Sample	Observations	Methods	Findings
Nishat (1992)	Firms of 10 major industries for 1980-86	1,344	Regression using share prices as dependent variable	• Both dividend and retain earnings affected the share prices. However, the dividend effect hypothesis is comparatively stronger than retained earning hypothesis.
Nishat and Irfan (2001)	160 firms listed on the KSE for 1981-2000	3,200	Regression model	• Using dividend yield and dividend payout as a proxy for dividend. • Dividend policy affected share prices of Pakistani firms.
Kanwer (2002)	317 firms listed on the KSE for 1992-98	2,219	Regression using dividend yield as dependent variable	• Supported the signalling theory that future earnings tended to be associated with increased current dividend yield.
Kaleem and Salahuddin (2006)	24 firms listed on the LSE over the period 2002-03	200	Event study to calculate Market Adjusted Abnormal Returns (MAAR) and Cumulative Abnormal Returns	• Insignificant MAAR was 0.001 for 2002 and -0.009 for 2003. Similarly, CAR were also insignificant taking values of -0.6 in 2002 and -0.4 in 2003 • Investors in Pakistan seemed to have no net gain on dividend announcements. The evidence from the LSE tends to support Miller and Modigliani's (1961) hypothesis.
Zaman (2007)	6 firms listed on the KSE over 2000-05	7 (dividend observations)	Event study, ANOVA and regression	• Significant positive impact of dividend and earning announcements on share prices on all events. • 20 non-dividend announcements were also studied.
Mubarik (2008)	5 Oil and Gas Marketing sector over 2004 -08	32	Event study	• The results showed an insignificant negative value of AAR (-0.002, t-value: -1.8) and significant negative value of CAAR (-0.04, t-value: -26.8) on the announcement date. • The CAAR around all 20 days event window were significantly negative. • The results indicated that dividend and share prices had weak and negative association with one another.
Akbar and Baig (2010)	79 firms listed on the KSE for 2004-07	129 (cash dividend declarations)	Event study calculating abnormal returns	• The returns were mostly negative for the 41-day window for cash dividends. • The abnormal returns were significantly positive for stock dividend and simultaneous stock and cash dividend events. • 24 stock dividend and 40 simultaneous cash and stock announcements were also studied.

Note: The table provides a summary of the previous studies that have been conducted in Pakistani market regarding the signalling effect of dividend policy.

over the period 1980-86. The authors found that dividends and retained earnings were important influences on share returns in both high-growth and low-growth industries. Moreover, the authors concluded that "the dividend effect hypothesis is comparatively stronger than the retained earning [influence]." (p. 60)[121]

The signalling theory of dividend policy in Pakistan was supported by Kanwer (2002) who studied the dividend policy of 317 firms listed on the KSE over the period 1992-98. The author used a regression model[122] with dividend yield as the dependent variable; a dummy variable was used as a proxy for the signalling effect based on whether earnings increased or decreased in the future. The results showed that the dummy variable was positively associated with dividend yield which supported the signalling theory that future earnings tended to be associated with increased current dividend yield (Pettit, 1972; Lonie et al., 1996; McCluskey et al., 2006). In addition, the findings of the regression model indicated that size had a positive but insignificant relationship with dividend payment; the current's year retained earnings and the market to book ratio had significantly negative relationships with dividend having coefficients of -9.7% and -19.0% respectively.[123]

Recently, Kaleem and Salahuddin (2006) used an event study methodology to analyse the impact of dividend announcements for common share prices on the Lahore Stock Exchange; they calculating MAAR and CAR for a sample of 24 firms listed on the exchange over the period 2002-03. The empirical results showed that the average MAAR was 0.001 for

[121] The dividend effect was significantly stronger for six out of the ten industries examined. The six industries were: textile, engineering, cement, fuel and energy, jute and vanaspati and allied. In two industries (chemicals and sugar) the regression coefficient for dividends was higher than for retain earnings but not significant; while the effect of retained earnings was stronger in the 'other' and 'paper and board' industries.

[122] Three explanatory variables were used: sales for the size of a firm, surplus for retained earnings, and market to book value for investment opportunities

[123] The coefficient showed that a 1.0% increase in the current year's surplus and market to book ratio tended to decrease dividend yield by about 10.0% and 19.0% respectively.

2002 and -0.009 for 2003, neither of which was statistically significant.[124] Similarly, results for CAR were also insignificant since values of -0.6 in 2002 and -0.4 in 2003 were recorded.[125] Although these short-term findings were insignificant, the results indicated that investors incurred losses of 2.5% in 2002 and 1.7% in 2003 over a period starting 30 days before the dividend announcement and ending seven days after the ex-dividend date. The authors concluded that:

> "Investors in Pakistan seemed to have no net gain due to dividend payment. The evidence from the LSE tends to support Miller and Modigliani's (1961) hypothesis of dividend irrelevancy." (p. 6)

By contrast, Zaman (2007) found a significant positive impact of dividend announcements on share prices. Zaman (2007) analysed the impact of different events[126] on the share prices of six highly-traded companies listed on the all three stock exchanges of Pakistan from June 2000 to June 2005.[127] The author used a market-based event methodology, ANOVA and multiple regressions in order to carry out his research. The results showed a significant positive impact of dividend and earnings announcements on share prices.

In contrast to these studies, Mubarik (2008) documented that "share prices do not respond positively to the dividend announcements. The data indicates that dividend announcements and share prices have weak and negative association with one another." (pp. 12-13). The author analysed the impact of dividend announcements on the share prices of the five firms of the Oil and Gas Marketing sector of Pakistan having 32 dividend announcements from August 2004 to February 2008. Mubarik (2008) calculated average

[124] The MAAR values of three and four days before the dividend announcement were higher than the MAAR value of the announcement date; this may be due to a leakage of information before the announcement date (Pettit, 1972; Uddin, 2003).
[125] More than 60.0% of companies had negative CARs.
[126] The events include different announcements like: an issue of share, dividends, earnings, a change in accounting policy, a change in the board of directors and bonus shares etc.
[127] The six companies which belong to different sectors were: National bank of Pakistan (NBP); Oil and gas development company limited (OGDCL); Dera Ghazi Khan cement company (D.G.Khan cement); Pakistan telecommunication company limited (PTCL); Pakistan tobacco company (PTC); and Unilever Pakistan limited. The three stock exchanges were: KSE, LSE and ISE.

abnormal returns (AAR) and cumulative average abnormal returns (CAAR) over a 20-day event window around the dividend announcements. In contrast to other studies of developed and emerging markets, (Pettit, 1972; Lonie et al., 1996; McCluskey et al., 2006; Zaman, 2007), the results showed an insignificant negative AAR value of -0.002 (t-value = -1.8) and a significant negative CAAR value (-0.04, t-value = -26.8) on the announcement date. Furthermore, the values of the CAAR around all 20 days of the event window were significant and negative.

In line with Mubarik (2008), Akbar and Baig (2010) found that: "the returns are mostly negative for the 41-day window" for cash dividends (p. 121). The cumulative abnormal return for day t-1 to t+1 was -0.009 with t-value of -2.3. Moreover, the authors found significant positive abnormal returns for stock dividend and simultaneous cash and stock dividend announcements.[128]

3.8 Conclusion

In conclusion, the findings of various studies show a great deal of support for Linter's behavioural model of dividend policy where current dividend is based on the current year's earnings and past year's dividend. Different facets of dividend policy have been discussed in the literature although the emphasis in this thesis is on the signalling hypothesis. The signalling hypothesis states that dividends have information content i.e., a dividend increase is generally viewed as a positive signal about future earnings while a dividend cut is perceived as a negative sign about the future earnings stream of the company. Various surveys have suggested that dividends act as a signal to outside stakeholders (Baker et al., 1985; Baker and Powell, 1999; McCluskey et al., 2007). Similarly, empirical findings also supported the notion that dividend announcements contain information about future earnings

[128] The cumulative abnormal returns over the period day t-1 to t+1 for stock dividends (simultaneous stock and cash dividend) were 0.03 (0.03) with t-values that were significant at the 5.0% level.

(Pettit, 1972; Aharony and Swary, 1980; Lonie et al., 1996; McCluskey et al., 2006); but earning announcements tend to be the dominant signal in those cases where dividends and earnings are jointly announced (Aharony and Swary, 1980; Lonie et al., 1996; McCluskey et al., 2006). Moreover, the interaction between dividend and earning announcements tends to convey important information to market participants (Kane et al., 1984; Easton, 1991; Lonie et al., 1996; McCluskey et al., 2006). Evidence suggests that the dividend and earning announcements re-enforced each other.

This signalling hypothesis contrasts with the "theory of irrelevance" introduced by MM in 1961; these authors proved that under certain assumptions, the dividend paid by a firm should not influence its market value (Black and Scholes, 1974; Miller and Scholes, 1982; Uddin, 2003; Kaleem and Salahuddin, 2006).

It is obvious form the literature about the share price reaction to dividend announcements in the Pakistan market that there is a diversity of opinions among researchers. Some academics have favoured MM's irrelevance theory (Kaleem and Salahuddin, 2006); other researchers are proponents of the signalling view (Nishat, 1992; Kanwer, 2002; Zaman, 2007; Mubarik, 2008; Akbar and Baig, 2010). These various results may be due to the tiny sample used in the analysis of the effect of dividend announcement on share prices. The current thesis attempts to overcome these limitations and build upon previous findings in this area.

CHAPTER 4

METHODOLOGY AND METHODS

4.1 Introduction

This chapter discusses the methodology and methods used in carrying out the research for the thesis. The chapter outlines the nature of social science research, the assumptions underpinning views about society, the research paradigm employed and the methods used in the research. An analysis of the thesis shows that the research employed both qualitative and quantitative methods to examine the impact of dividend announcements on the share prices of Pakistani firms. Moreover, the research was conducted within a functionalist paradigm thought to be appropriate for the questions being examined.

As the thesis examines the impact of dividend disclosures on the share prices of Pakistani listed firms, an event study was therefore used to calculate any unexpected returns around the announcements. In addition, interviews were conducted with company executives and financial analysts to ascertain their perceptions about the determinants of a firm's dividend policy and its impact on share prices.

The reminder of the chapter is structured as follows. Section 4.2 outlines the key theories underpinning the research and Section 4.3 highlights the assumptions underpinning the four paradigms in social science research. The research assumptions of the current study are the focus of Section 4.4. The methods employed in this thesis are discussed in Section 4.5 while Section 4.6 summaries the conclusions.

4.2 Theoretical Underpinning of the Research

The theoretical underpinning of dividend research is based on the dividend irrelevant theory of MM (1961). According to this theory, investors are indifferent about whether the returns from a share arises in form of a dividend or a capital gain. It implies that dividend announcements do not affect the value of the firm:

> "Values are determined solely by "real" considerations –…the earning power of the firm's assets and its investment policy – and not by how the fruits of the earning power are "packaged" for distribution." (p. 414)

The current research does not accept dividend irrelevancy argument because it suggests that one of MM's assumptions – namely that information freely avialable to all – may not be tenable; instead, it focuses on the information content of dividend policy which implies that dividend announcements affect the share prices. If this is the case, the share prices should reflect all the available information in the market including the dividend announcements; it draws on the Efficient Market Hypothesis (EMH).

The EMH asserts that share prices are an accurate reflection of the information available to investors. According to Fama (1970, p. 383), "A market in which prices always fully reflect all available information is called efficient." Fama (1970) categorised the EHM into three groups: weak-form, semi-strong form and strong-form. The weak-form of the EMH proposes that share prices reflect all historic information such that it is impossible for an investor to consistently outperform by trading on the basis of past news. The semi-strong form of the EMH assumes that share prices impound all publically available information into prices in an accurate and speedy fashion such that transacting on the basis of information once it is public is pointless. The strong form of EMH suggests that share prices impound all available information including private information into equity values.

If the Pakistani market follows the EMH and if dividend details convey important news then one would expect significant returns on the dividend announcement date. Any significant unexpected returns before the announcements date might suggest that information about dividends has leaked to the market before being officially published. By contrast, any significant unexpected returns after the announcement date might call the EMH into question since it would suggest that the market takes time before impounding news from the dividend into prices.

4.3 Assumptions about Social Science Research

Sekaran (2002) defines business research as "an organized, systematic, data-based, critical, objective, scientific inquiry or investigation into a specific problem, undertaken with the purpose of finding answers or solutions to it" (p. 5). This research adopts a similar perspective; it tries to address the topic of how Pakistani firms decide upon their dividend policies and whether these affect the firms' values. The methodology draws from both qualitative and quantitative research approaches. According to Bryman (1988),

> "Quantitative research is, then, a genre which uses a special language which appears to exhibit some similarity to the ways in which scientists talk about how they investigate the natural order – variables, control, measurement, experiment." (p. 12)

On the other hand, Bryman (1988) defines qualitative research as including different methods:

> "The best known of these methods is participant observation, which entails the sustained immersion of the researcher among those whom he or she seeks to study with a view to generating a rounded, in-depth account of the groups, organisation, or whatever." (p. 45)

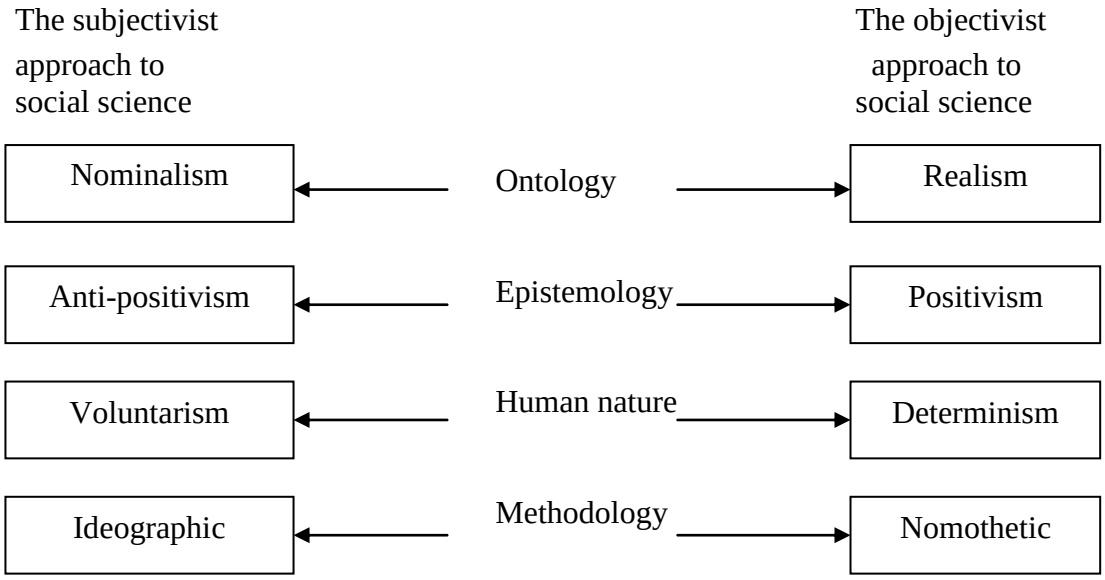
Methodology in the social sciences is the mixture of assumptions about nature (hard, real and external to the environment) and individual subjective qualities (Burrell and Morgan, 1979). According to Blalock (1984):

> "Social sciences, lodged as they are between the natural sciences and humanities, have almost inevitably become a battleground over the suitability of natural science models and approaches to the study of human behaviours and social processes." (cited in Lee, 1992, p. 93)

With any research, the researcher needs to be aware of the philosophical assumptions underpinning his work; in particular, he needs to explain his understanding of reality and how knowledge about this reality can be acquired (Taylor and Bogdan, 1984; Gill and Johnson, 1997). Burrell and Morgan (1979) categorised the philosophical assumptions about social science according to a researcher's position on a subjective-objective continuum. According

to Burrell and Morgan (1979), a researcher's position on this continuum depends upon four assumptions about the nature of social science: ontology, epistemology, human nature and methodology. Depending upon one's beliefs about ontology, epistemology and human nature, an appropriate methodology emerges. Figure 4.1 outlines these four assumptions about the nature of social science proposed by Burrell and Morgan (1979). According to the authors, sociological positivism and German idealism define the objective and subjective extremes of the model.

Figure 4.1 Assumptions about the Nature of Social Science



Source: Burrell and Morgan (1979, p. 3)

Under the objectivist approach to social science research, entities exist in a real world external to those involved in the research (Saunders et al., 2007). Therefore, "it implies that social phenomena and the categories that we use in everyday discourse have an existence that is independent or separate from actors" (Bryman, 2004, p. 16). By contrast, the subjectivist end of the continuum views entities as social constructs dependent upon the perceptions and actions of actors (human beings) performing activities in the social world (Bryman, 2004).

Ontology is the branch of metaphysics which deals with the nature of being and explains assumptions about reality (Saunders et al., 2007). According to Burrell and Morgan (1979), reality may come from the external world or from internal consciousness; it may exist independently of the researcher or it may reside in the mind of the individual. A 'nominalisist' approach to reality suggests that the world exists in our perceptions and thoughts while the realism approach sees reality as building upon concrete physical structures. Normalisation (idealism or conventionalism) characterises the social world as "nothing more than names, concepts and labels"; however, realism believes in the existence of real and tangible structures which exist independently of individuals (Burrell and Morgan, 1979, p. 4). This study asserts that the business world in Pakistan is a real phenomenon where dividend payments are important events which are decided upon by individuals. Every listed company deals with the regulations, rules and procedures of the country. However, the dividend policies of Pakistani firms are the result of collective decisions by individual members of a board of directors. Therefore, the dividend policies of Pakistani businesses have an element of both realism and nominalism underpinning them.

After outlining the researcher's particular beliefs about reality, the next task is to explain what is meant by the term "knowledge"; this is called epistemology (Ryan et al., 2002). Epistemology establishes the relationship between a researcher and the researched. Epistemology is based on ideas about "what forms of knowledge can be obtained, and how one can sort out…'true' from…'false'" (Burrell and Morgan, 1979, p. 1). Moreover, epistemology also explains "whether knowledge is something which can be acquired on the one hand [positivism], or is something which has to be personally experienced on the other [anti-positivism]" (Burrell and Morgan, 1979, p. 2). Thus, from the perspective of subjective-objective dimension, Burrell and Morgan suggested that epistemology can be categorised into two extreme positions ranging from positivism to anti-positivism.

Positivism is based on concrete facts and often linked to quantitative research. It applies the models and methods of research from the natural sciences to study human nature; it also searches for regularities and relationships among the elements being investigated (Saunders et al., 2007). Indeed, Bryman (2004) defined positivism as "an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond" (p. 11). By contrast, anti-positivism is based on the analysis of the 'frame of reference' from inside not from outside the researcher and those being researched. It is the product of the subjective analysis of individuals (Burrell and Morgan, 1979). The research of this thesis focuses on obtaining knowledge using both a positivist and anti-positivist framework. The research employs quantitative data (positivism) to study the relationship between dividend announcements and the share prices of Pakistani firms. On the other hand, the dividend decision process and different individuals' views about dividend announcements involve the study of individual behaviour (company executives and financial analysts) which in turn implies an anti-positivist element to the epistemology underpinning the thesis.

Having outlined my assumptions about reality and my approach to the concept of knowledge, the next task is to outline the relationship between human beings and their environment. The study of human nature focuses on whether individuals have a free will to do anything or whether their actions are constrained by rules (Burrell and Morgan, 1979). Therefore, this assumption relates to whether humans can control their environment (voluntarism) or whether they are controlled by their environment (determinism). This research adopts the deterministic approach to human nature as dividend policy is assumed to be affected by the external factors such as the regulations of the SECP, the political situation and the socio-economic factors. This does not mean that dividend policy is in the hands of external actors; instead, the dividend policy of Pakistani firms is assumed to depend upon the

free-will of the board of directors. So, the dividend policy of Pakistani firms suggests that the current research question is not at either extreme of the determinism-voluntarism continuum but lies in between these two ends of the spectrum. This stance about human nature is recommended by Burrell and Morgan (1979) when they stated that social sciences researchers may "adopt an intermediate standpoint which allows for the influence of both situational and voluntary factors in accounting for the activities of human beings." (p. 6)

A researcher's belief about ontology, epistemology and human nature lead to different methodologies for undertaking research (Burrell and Morgan, 1979; Hopper and Powell, 1985; Chua, 1986). The assumptions about reality influence the way in which knowledge is acquired; this in turn leads to different methodologies (Ryan et. al, 2002). Methodology refers to the "way in which we approach problems and seek answers... [and] applies to how one conducts social research" (Taylor and Bogdan, 1984, p. 1). It is important to distinguish between methodology and method. Methodology is the "process of doing research" based on assumptions about a particular ontology, epistemology and view of human nature; by contrast, methods are the "techniques used in the research" (Ryan et al., 2002, p. 36). Therefore, methodology refers to the way which research is conducted based on the philosophical and theoretical underpinnings of the researcher and their implications for the research methods selected (Saunders et al., 2007).

Based on the subjective-objective dimension of Burrell and Morgan's (1979) analysis, methodology may be "ideographic" or "nomothetic". When the reality is based on subjective experiences and humans have free will, ideographic (qualitative) methods of acquiring knowledge are used (Ryan et al., 2002). Ideographic research focuses on "obtaining first-hand knowledge of the subject under investigation" (Burrell and Morgan, 1979, p. 6). On the other hand, if the researcher accepts that reality is not socially constructed and believes in a deterministic view of human nature, nomothetic (quantitative) methods of research should be

used. Therefore, nomothetic (positivist) methodology focuses on the "quantitative techniques for the analysis of the data" (Burrell and Morgan, 1979). The current research adopts both ideographic (anti-positivist) and nomothetic methods of conducting research. As the research looks at the impact of dividend news on share prices, an event study is used to calculate abnormal returns around the announcement dates. On the other hand, executives from Pakistani firms are consulted about how they decide upon dividend policy and how the investors and company officials perceive the dividend announcements which take place. Such perceptions clearly adopt an ideographic approach.

Table 4.1 The Regulation-Radical Change Dimension

The sociology of Regulation is concerned with:	**The sociology of Radical Change is concerned with:**
(a) The status quo	(a) Radical change
(b) Social order	(b) Structural conflict
(c) Consensus	(c) Modes of domination
(d) Social integration and cohesion	(d) Contradiction
(e) Solidarity	(e) Emancipation
(f) Need satisfaction	(f) Deprivation
(g) Actuality	(g) Potentiality

Source: Burrell and Morgan (1979, p. 18)

In addition to their four assumptions about social science, Burrell and Morgan (1979) argued that the researcher needs to state his or her assumption about the nature of society: they suggested that a continuum existed from the sociology of 'Regulation' to 'Radical Change'. This assumption replaced the 'order-conflict' dimension of society which was proposed by Dahrendorf (1959) and which treated the two dimensions as mutually exclusive and separate from each other (as cited in Burrell and Morgan, 1979, p. 11). By contrast, Burrell and Morgan's (1979, p. 17) approach to a researcher's views about society is "a continuum, not a dichotomy"; there is a middle way between the two extremes which has

been labelled ‘ordered change’ (Ryan et. al, 2002, p. 40). Table 4.1 depicts the characteristics of the sociology of regulation and radical change.

The sociology of regulation asserts that regulation is essential for the day-to-day operations of the society; cohesion within society is a result of these ‘regulations’. Burrell and Morgan (1979) stated that sociology of regulation is:

> “A sociology which is essentially concerned with the need for regulation in human affairs; the basic questions which it asks tend to focus upon the need to understand why society is maintained as an entity. It attempts to explain why society tends to hold together rather than fall apart.” (p. 17)

The sociology of regulation focuses on studying the status quo instead of seeking fundamental changes within the system. By contrast, the sociology of radical change believes in emancipation from the system by altering society (Gallhofer and Haslam, 2003). Burrell and Morgan (1979) define the sociology of regulation as:

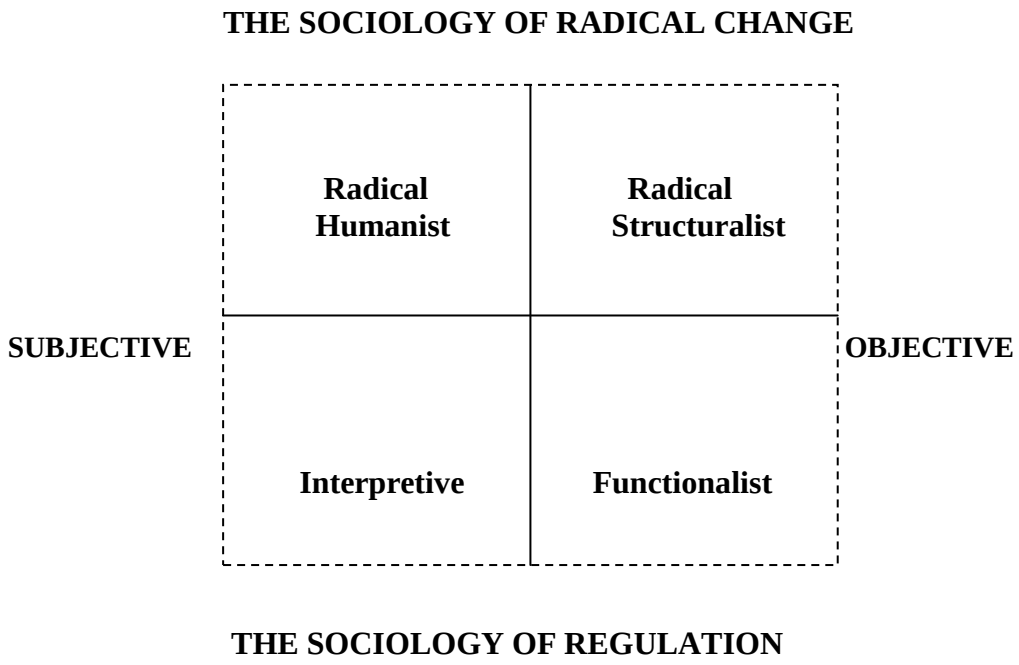
> “A sociology which is essentially concerned with man’s emancipation from the structures which limit and stunt his potential for development. The basic questions which it asks focus upon the deprivation of man, both material and psychic.” (p. 17)

Based on assumptions about social science and society, Burrell and Morgan (1979) proposed four paradigms for social research. Paradigms provide a “tool for establishing where you are, where you have been and where it is possible to go in the future. It provides a tool of mapping intellectual journeys in social theory” (Burrell and Morgan, 1979, p. 24). Thus, a paradigm is a combination of beliefs which indicates to the researcher what should be studied, how the research should be undertaken, and how any results should be interpreted (Bryman, 2004).

According to Burrell and Morgan (1979), assumptions about social science locate a researcher along a ‘subjective-objective’ dimension while assumptions about the nature of society place a researcher on a ‘regulation-radical change’ continuum. The combination of

both assumptions gave rise to a two-by-two matrix which yields four paradigms[129] for social science research. Figure 4.2 shows the 'subjective-objective' dimension on the extremes of the horizontal axis while the extremes of vertical axis depict the sociology of 'regulation and radical change' dimensions. The four resulting paradigms are: functionalist, interpretive, radical humanist and radical structuralist. The four paradigms give researchers different lenses for looking at the social world based on their different assumptions about the nature of society and social science. For example, being a functionalist a researcher looks at 'how the dividend policy works in Pakistan'; however, being a radical humanist a researcher focuses on 'how the dividend policy should be in Pakistan.'

Figure 4.2 Four Paradigms for the Analysis of Social Theory



Source: Burrell and Morgan (1979, p. 22)

The bottom-right hand quadrant of Figure 4.2 shows the functionalist paradigm. This paradigm results from the combination of the sociology of regulation perspective on society

[129] Hopper and Powell (1985) and Chua (1986) divided the four paradigms into three research groups where the radical humanism and radical structuralism paradigms were labelled as critical research; the functionalist paradigm as mainstream research and the interpretive paradigm as interpretive accounting (Cited in Ryan et al. 2002).

and an objectivist view of social science (Ryan et al., 2002). The functionalist approach is based on the philosophy of sociological positivism which applies methods from the natural sciences to the study of human activities. Moreover, "theories [from this functional perspective] are considered as static in the sense that they are concerned with explaining the status quo" (Burrell and Morgan, 1979, p. 14). According to Burrell and Morgan (1979), the functionalist paradigm assumes that:

> "The social world is composed of relatively concrete empirical artefacts and relationships which can be identified, studied and measured through approaches derived from the natural sciences." (p. 26)

The extreme view of this paradigm is based on a realistic ontology, a positivist epistemology, a deterministic view of human nature and a nomothetic methodology. According to the sociology of regulation perspective adopted, this paradigm explains "status quo, social order, consensus, social integration, solidarity, need satisfaction, and actuality" (Burrell and Morgan, 1979, p. 26). Thus, the functionalist paradigm provides

> "Rational explanation of why a particular organisational problem is occurring and developing a set of recommendations set within the current structure of the organisation's current management." (Saunders et al., 2007)

The interpretive paradigm is similar to the functionalist paradigm in that it is not concerned with research questions involving societal change; however, the interpretive approach differs in that it focuses on the study of society from the point of view of the actors (human beings) who are engaged in the social activities (Saunders et al., 2007). Burrell and Morgan (1979) stated that the interpretive paradigm is: "informed by a concern to understand the world as it is...[and] seeks explanation within the realm of individual consciousness and subjectivity" (p. 28). Therefore, the paradigm is characterised by a subjectivist view of reality, a nominalist ontology, an anti-positivist epistemology, a voluntarist view of human nature and an ideographic methodology.

The radical humanist paradigm in Figure 4.2 is based upon the assumption of societal change and a subjectivist view of reality. The paradigm adopts a "critical perspective on organisational life" (Saunders et al., 2007, p. 121). This approach views the social world from the perspective of a nominalist ontology, an anti-positivism epistemology, a voluntarist assumption about human nature and an ideographic methodology; along with these assumptions about the society, this paradigm focuses on radical change, modes of domination, emancipation, deprivation and potentiality. This paradigm therefore studies the behaviour of individuals within social systems characterised by radical change.

The radical structuralist paradigm combines assumptions about the sociology of radical change and an objectivist view of social science. It adopts the same assumptions about reality as the functionalist paradigm but studies radical changes in the social world. The radical structeralist paradigm is underpinned by a realistic ontology, a positivistic epistemology, a deterministic view of human nature and a nomothetic methodology. Saunders et al. (2007, p. 122) stated that both the radical structuralist and radical humanist paradigms focus on change; however, the former concentrates on "what should be done" while the later emphasises "what is done".

The framework proposed by Burrell and Morgan (1979) has provided the methodological underpinning for research in accounting and finance (Hopper and Powell, 1985; Chua, 1986, Laughlin, 1995; Bryman, 2004, Ryan et al., 2002; Saunders et al., 2007). However, the four paradigms of Burrell and Morgan have also been criticised for the constraints which they place on researchers. For example, according to Burrell and Morgan (1979), these four paradigms are 'analytically distant':

> "In the sense that one can operate in different paradigms sequentially over time, but mutually exclusive, in the sense that one cannot operate in more than one paradigm at any given point in time, since in accepting the assumptions of one, we defy the assumptions of all the others." (p. 25)

However, Chua (1986) has labelled these paradigms as “unsatisfactory dichotomies” (p. 626); she has argued that the assumptions behind Burrell and Morgan’s framework lie on a continuum and do not involve mutually exclusive dichotomous paradigms. Researchers can use more than one paradigm at any one time. Chua (1986, p. 626) further criticised this approach arguing that the Burrell and Morgan (1979) framework, "either assumes that human beings are determined by their societal environment or they are completely autonomous and free-willed". This stance of Burrell and Morgan (1979) contrasts with Habermas's (1978) argument "that while individuals do act and shape meanings, they may still live within structures of domination in society" (p. 626). Like Hopper and Powell (1985), Chua (1986) merged two paradigms (radical humanist and radical structuralist) into one (critical research). Moreover, she suggested that three sets of beliefs underpinned research into the social sciences: beliefs about knowledge, beliefs about the physical and social reality and beliefs about the relationship between theory and practice.[130] According to Chua (1986), these classifications can help evaluate the strengths and weakness of different aspects of accounting as compared to the non-evaluatory framework of Burrell and Morgan (1979).

Similarly, Laughlin (1995) criticised the bipolar dualism of Burrell and Morgan (1979) which limited the choice of research approaches. Instead, he introduced three aspects (theory, methodology and change) which a research study has to consider; he suggested that each of these aspects involved a continuum ranging from low to high.[131] Laughlin (1995) argued that a researcher can choose a middle point on the continuum which he referred to as “middle range thinking”.[132]

---

[130] Beliefs about knowledge are divided into epistemological and methodological assumptions. Epistemological assumptions deal with the ways in which knowledge is understood while methodological beliefs focus on the valid methods used in gathering the knowledge.

[131] Theory refers to the level of theorisation before starting a research project; methodology implies the assumptions about the social science while change refers to the assumptions about the society.

[132] Laughlin (1995) acknowledged the work of Habermas while in informing his ideas. Specifically he noted that: “Habermas, with his complex theoretical and methodological model, provides the most complete example of ‘middle range thinking’ to empirical research in not only accounting but also other social dimensions. It has a more balanced approach to the social world maintaining that current configurations are not all inappropriate

4.4 Research Assumptions Underpinning this Study

This section outlines the philosophical assumptions of the current investigation about the impact of dividend announcements on the share prices of Pakistani firms. In light of the discussion in Section 4.2, this section provides some justification for using both quantitative and qualitative methods in the research by highlighting the particular world-view of the author about the nature of social science and society. Drawing on Burrell and Morgan's (1979) framework, this thesis is located more in the 'sociology of regulation' rather than the 'sociology of radical change'. Chapter 2 provides detailed information about the nature of Pakistani society which is governed by certain rules and customs; the research does not seek to change Pakistani society but rather to understand why corporations within the country behave in the manner that they do (Gioia and Pitre, 1990). Therefore, the research focus of this study is on the 'status quo' in its examination of the relationship between dividends and share prices. However, the research may provide some insights which could have policy implications for changing the current approach to business within the country; any such change is a by-product of the findings rather than a goal of the research though. This stance is in line with the medium change attitude to the status quo, highlighted by Laughlin (1995); according to Laughlin (1995), this medium change view "holds open the possibility that the status quo should continue while also keeping open that change is required" (p. 84).

The ontology of the current study is based on the assumption that the business world in Pakistan is real and has important implications both for the country and its citizens. Every listed company deals with the regulations, rules and policies that are enacted by the government. In addition, they are run by individuals. Therefore, this research does not adopt the ontological assumption that Pakistani society exists independently of individuals. Indeed, the dividend policies of Pakistani firms are as the result of decisions by members of boards of

---

with the supply of various models to allow some judgements on this issue to be made. Already the literature in the accounting area is starting to use and adapt Habermas' insights in empirical research in accounting but this literature has only scratched the surface of this important endeavour." (as cited in McCluskey, 2006, p. 90)

directors. Therefore, the research will examine the relationship between dividend announcements and share prices of listed firms on the KSE. After this quantitative investigation, individuals are interviewed (qualitative aspect) about the dividend policies of their firms. As a result, the thesis adopts a mixed-methods approach (McCluskey, 2006) to examining the research question; both quantitative and qualitative methods of research are employed when investigating the dividend-paying behaviour of Pakistani firms.

Although a mixed-methods approach is employed, the thesis primarily adopts a functionalist approach to research; as with most accounting and finance research in this area, a functionalist perspective is taken (Saunders et al., 2007; Chua, 1986). The functionalist approach clearly underpins the quantitative event study method which is used to calculate the unexpected returns around dividend announcement dates; on the other hand, the use of interviews to ascertain the perceptions of finance director and investors about firm dividend policies is less obviously functionalist. One might argue that interviews introduce a subjective element to the research process which according to Burrell and Morgan's (1979) framework might locate the work within the interpretive paradigm. However, the questions for the interviews were designed in a manner to provide some element of objectivity in the responses. For example, the interview questions focused on "how dividend payments are decided upon." [See Appendix 6.3 and 6.4] Some perceptions about dividend policy are also solicited but these are used to compare results with the findings from the quantitative analysis of the event study. This objectivity in the interviews leads to the use of the functionalist instead of the functionalist and interpretive paradigms.

Chua (1986) provides a further justification for the approach adopted since she pointed out that a researcher can use more than one paradigm at same time. Similarly, according to Lee (1992):

> "Qualitative methodology and quantitative methodology, based on different paradigms, are mutually exclusive. A "mixed" approach may cause "ontological

> oscillation" (Burrell and Morgan, 1979), although a researcher can choose to operate in different paradigms at different times. The different research approaches are like "holography", presenting reality in different lights and offering alternative paths to understating reality. They serve research purposes by different means with different results." (p. 93)

This stance of Lee (1992) suggests that a researcher can use more than one paradigm at same time; while I do not follow Lee's suggestion of using both functionalist and interpretive paradigms in this thesis, I do recognise that assumptions about social science range along a continuum.

Since the study uses both quantitative (event study) and qualitative (interviews) research methods, the researcher does not adopt extreme positions with regard to the ontological and epistemological assumptions underpinning the work (Chua, 1986; Laughlin, 1995). This choice was deliberate since, "quantitative data provides breath to a study while qualitative methods provide depth" (McCluskey, 2006, p. 91). Therefore, I place myself towards the interpretive end of the functionalist paradigm. The event study is a quantitative method which assumes a realistic ontology and an objectivist epistemology; as a result, the functionalist paradigm characterises this research component. On the other hand, the interviews use more of a nominalist ontology and a more subjective epistemology to ascertain the perceptions of financial directors and investors about dividend policy; therefore, the interpretive end of the functionalist paradigm is employed.

4.5 Methods

As the last section highlighted, this research uses both quantitative (event study) and qualitative (interviews) methods to analyse the impact of dividend announcements on the share prices of Pakistani listed firms. The research employs an event study first while the interviews were conducted after this event study was mostly completed; the interviews complemented the findings of the event study and allowed issues which emerged in the event

study to be discussed with the participants. Some preliminary event study results were discussed in detail with those who crafted (financial officials) and received (financial analysts) the companies dividend policy such as insignificant unexpected returns on announcement date, the possible leakage of information beforehand and the interaction effect among dividend-earnings announcements. Chronologically, the event-study was started first before the interviews were conducted for pragmatic as well as theoretical reasons; travel to Pakistan was difficult initially because of ethnicity clashes in Karachi (Husain, 2010) as well as the political turmoil in the country. In addition, the setting up of the interviews took time and it was decided to start with the event study while interviewee contacts were being made. The first part of this section initially outlines the event study method before Section 4.5.2 describes the interview procedures followed.

4.5.1 Event Study

An event study is "an investigation of the relationship between security prices and economic events." (Strong, 1992, p. 533) The approach involves calculating unexpected returns for different events such as the announcement of earnings, dividends, or changes in government regulations. The assumption underpinning the event study is that: "the status quo has to be investigated but in the context of the researcher being open to the possibility of amending and refining the approach during the conduct of the empirical work" (McCluskey, 2006, p. 100). Most empirical investigations about the impact of dividend announcements on share prices have used the event study methodology to ascertain whether news of the disbursement is associated either abnormal or excess returns (Pettit, 1972; Watts, 1973: Kane et al., 1980; Aharony and Swary, 1980; Easton, 1991; Lonie et al., 1996; McCluskey et al., 2006; Kaleem and Salahuddin, 2006; Zaman, 2007; Mubarik, 2008).

Unexpected returns around the event dates are calculated as the difference between the actual return that a share earned and expected returns that it would have earned had no dividend news been disclosed. The actual share returns can be calculated using either a discrete[133] or logarithmic approach[134] (Strong, 1992). However, "theoretically, logarithmic returns are analytically more tractable when linking sub-period returns to form returns over longer intervals…and empirically, logarithmic returns are more likely to be normally distributed and so conform to the assumptions of standard statistical techniques" (Strong 1992, p. 535). Therefore, logarithmic share returns are calculated as:

$$R_{it} = \text{Ln}\,(P_{it}/P_{it-1}) \qquad [4.1]$$

where R_{it} is the daily return of firm i on day t; Ln is the natural log; P_{it} represents the share price of firm i on day t; and P_{it-1} is the share price of firm i on the previous day.

Daily data were used to examine the impact of dividend announcements on share prices rather than their weekly and monthly counterparts; daily returns allow the impact of dividend news to be isolated since the likelihood of contamination from other signals is diminished (Dyckman et al., 1984; Morse, 1984; Brown and Warner, 1985). However, a number of problems arise when using daily share prices. For example, Brown and Warner (1985) noted that daily returns exhibit statistical problems such as non-normality and autocorrelation as compared to their weekly and monthly counterparts; in addition, there is a higher risk of bias and inconsistency in estimating model parameters when daily data are used. For example, prior research has indicated that:

> "Infrequently traded shares have a beta estimate that is biased downwards, while for frequently traded shares the bias is upwards... [and bias] will be greatest with daily data." (Strong, 1992, p. 543)

---

[133] The discrete form of share returns is calculated as: $R_{it} = (P_{it} - P_{it-1})/ P_{it-1.}$

[134] Share Returns can be computed as dividend plus capital gain instead of only in terms of share price. i.e., $R_{it} = \text{Ln}(P_{it} + D_{it})/ P_{it-1}$ (Black and Scholes, 1974). Where, D_{it} is the dividend amount for the current year. However, the research concentrated only on share prices for share returns because (i) of non-availability of reliable dividend amounts; (ii) the method of calculating the share prices was adopted by other studies (Lonie et al., 1996 and McCluskey, 2006), so it will facilitate comparability.

To minimise the difficulties associated with the use of daily data, the study takes the natural log of share returns in order to minimise the non-normality in the data (Strong, 1992). In addition, a large sample of 639 events was considered for calculating unexpected returns as "securities converge to normality as the number of sample securities increases" (Brown and Warner, 1985, p. 25). Moreover, the research employs both non-parametric as well as parametric tests in case the data may suffer from normality problems.[135] Day t_0 is assumed to be the announcement date which is the day that the news appeared on the KSE's website. According to the signalling hypothesis, if changes in dividends convey information, the unexpected returns on this date should be significantly different from zero. Unexpected returns were calculated over a 21-day period from day t-10 to day t+10 centered on the dividend announcement date according to the formula:

$$UR_{it} = R_{it} - E(R_{it}) \qquad [4.2]$$

where R_{it} is the actual return of share i on day t and $E(R_{it})$ is the expected return for this security on the same day .

Two measures of expected returns were calculated in this study: Market Adjusted Returns for calculating excess returns and Market Model Returns for calculating abnormal returns around the event period.[136] These measures were used as they "outperform a simpler Mean Adjusted Returns procedure" when daily share returns are employed (Brown and

[135] However, it is worth noting that "the non-normality of daily returns has no obvious impact on event study methodologies" (Brown and Warner, 1985, p. 25). Dyckman et al. (1984) argued that any "non-normality of daily abnormal returns has little effect on event study tests." (as cited in Strong, 1992, p. 542)

[136] Strong (1992) proposed five methods of calculating expected returns including: mean adjusted returns; market adjusted returns, CAPM; matched/control portfolio and the market model. Similarly, Brown and Warner (1980) categorized the methods into three types: Mean Adjusted Returns; Market Adjusted Returns and Market and Risk Adjusted Returns (CAPM, matched/control portfolio and market model) The Mean Adjusted Returns consider the expected returns equal to the average share prices of security i over the estimation period. The difference between the actual returns and expected returns resulted in unexpected returns. This model assumes the interest rates, risk premia and security' risks are constant over time. Therefore, $UR_{it}= R_{it} - K_i$; where UR_i is unexpected returns; R_{it} is the actual share returns and K_i is the average returns over the estimation period. The other method uses the CAPM for estimating the estimated returns (Kane et al., 1984; Black and Scholes, 1974). Therefore, unexpected return is calculated as: $UR_{it} = R_{it}- [R_{ft} + \beta_i (R_{mt}- R_{ft})]$; where R_{ft} is the risk-free security return and β_i is the systematic return of each security. Under the Matched/control Portfolio arrangement, the sample securities are matched with the same risky portfolio and the difference results in unexpected returns for the event period.

Warner, 1985, p. 26). According to the null hypothesis, the abnormal (excess) returns on the announcement date of a change in dividend should not be significantly different from zero. By contrast, according to the information content hypothesis, the dividend increasing firms shall earn positive abnormal (excess) returns, dividend decreasing firms achieve negative abnormal (excess) returns while dividend-no-change companies only earn normal returns around the 21-day event widow.

The current study focuses on the market model for calculating abnormal returns around dividend announcement dates (Pettit, 1972; Aharony and Swary, 1980; Easton, 1991; Lonie et al., 1996; McCluskey et al., 2006). Many reasons exist for using the market model when calculating abnormal returns; for example, Strong (1992) stated that this was "the most popular" method of calculating abnormal returns. Similarly, Brown and Warner (1980) argued that "a simple methodology based on the market model performs well under a wide variety of conditions (p. 205). Moreover, the market model produces the same results for samples having trading frequencies systematically different from average – infrequently or frequently (Brown and Warner, 1985). Other motivations behind the market model are that it produces "smaller variances of abnormal returns…and…smaller correlations across security abnormal returns giving closer conformity to standard statistical tests" (Strong, 1992, p. 538). Moreover, "the market model will automatically control for the size effect" (Schwert, 1983, cited in Strong, 1992, p. 549).

An analysis of the data shows that the dividend announcements were scattered throughout the calendar period [see Appendix 5.1]. Therefore, calculating abnormal returns using the ordinary least squares (OLS) method and employing both parametric as well as non-parametric statistical tests appeared to be a "well-specified procedure" (Strong, 1992, p. 550). Moreover, Brown and Warner (1980) documented that:

> "The more complicated methodologies can actually make the researcher worse off, both compared to the market model and to even simpler methods, like Mean Adjusted Returns, which make no explicit risk adjustment." (p. 249)

The market model assumes a linear relationship between the expected return of an individual security and the market index. Therefore, equation [4.3] was calculated:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} + e_i \qquad [4.3]$$

where R_{it} is the share return; R_{mt} is the return on market index; α_i is the intercept of the regression equation; β_i is the measure of systematic risk and e_{it} is the unsystematic (firm-specific) risk.

Abnormal returns were then estimated by subtracting the actual security return from its expected return.

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}) \qquad [4.4]$$

where the expected returns were obtained from the market model and the R_{mt} was proxied for by the KSE-100 index. The market model was estimated for a period of 100 trading days prior to the event period for each dividend announcement i.e., D_{t-11} to D_{t-111}. Many different estimation periods have been employed in the literature for the calculating of the market model parameters using OLS. For example, McCluskey et al. (2006) and Lonie et al. (1996) used 180 days for studies of Ireland and the UK respectively while Abeyratna (1994) included 300 observations in his estimation procedure. The decision to estimate the market model over 100 days was a pragmatic one based on a desire for a long enough time span in order to arrive at an accurate estimate of α_i and β_i while not going back too far in case the estimates change over time such that the calculated values might not be representative of the up-to-date estimates of the parameters (Strong, 1992; McCluskey et al., 2006).

Because estimates of β's may be biased due to thin trading problems in an emerging market such as the KSE, a second approach to calculating expected returns was also

employed.[137] Specifically, excess returns were generated on the assumption that the expected return for a firm's share was equal to the market return as proxied for by the KSE-100 index. Therefore, excess returns were estimated as the difference between the actual return earned by a share on a particular day and the return on the market for the same day; the approach assumes that every share has a beta of 1.0 for the event periods examined. The excess returns were calculated as follows:

$$ExR_{it} = R_{it} - R_{mt} \quad [4.5]$$

where ExR_{it} is the excess return of security i at time t, R_{it} is the actual return of security i at time t and R_{mt} is the return on the market index at time t.

The return on the market was estimated using the KSE-100 index.[138]

$$R_m = Ln(KSE100_t/KSE100_{t-1}) \quad [4.6]$$

The cumulative abnormal returns are calculated as:

$$CAR_{it} = \sum_{t-10}^{t+10} ARit \quad [4.7]$$

Where, t is the event period t+10 to t-10. Similarly, the cumulative excess returns are computed as:

$$CExR_{it} = \sum_{t-10}^{t+10} ExRit \quad [4.8]$$

In order to test the hypothesis that dividend changes convey information, abnormal and excess returns were calculated for the sample firms around the event period. A one or two-tailed test was then used to compute the p-values for the null hypothesis at 5.0% significance level depending upon the specific null being considered.

To test the information content hypothesis, the dividend announcements were divided into three categories: (i) announcements relating to increases in DPS (DI); (ii) announcements involving reductions in DPS (DD); and (iii) dividend-no-change events (DnC). The change in

[137] Moreover, due to market overreaction, the β can change between the estimation and the event period (Chan, 1988; Ball and Kothari, 1989).

[138] The KSE-100 index is constructed on the basis of a value-weighted index and is used in this thesis as there is "no evidence that the use of the value-weighted index increases the power of the tests" compared to equally-weighted index (Brown and Warner, 1980, p. 248).

DPS was determined as the absolute difference between the DPS from one year to the next. According to the information content hypothesis, the CAR and CExR for DI firms will be positive, for DD events will be negative and DnC companies will be zero.[139]

As Chapter 2 highlighted both dividend and earnings details are announced to the Pakistani market at same time after the BoD's meeting.[140] So attempting to study the impact of the dividend announcement without considering any confounding earnings signal may be problematic (Kane et al., 1984; Easton, 1991; Lonie et al., 1996; McCluskey et al., 2006). In order to disentangle these confounding signals, previous studies have focused on: (i) identifying the unexpected returns earned by different divided-earnings change groups and (ii) using regression analysis in order to analyse the interaction between earnings and dividend signals. McCluskey et al. (2006) argued that these methods were useful for calculating the impact of the joint signal from the dividend and earnings information; however, they used ANOVA analysis for this purpose.

In this study, the sample was split into different groups on the basis of each firm's announcement of its dividend and earnings change. The analysis initially focused on the three dividend-change groups: DI, DD and DnC. Three groups were then formed depending upon the changes in earnings reported by the various companies: earnings-increase (EI), earnings-decrease (ED) and earnings-no-change (EnC). After combining the three dividend-change groups with the three earning change categories the sample was split into nine groups (DIEI, DIED, DIEnC, DDEI, DDED, DDEnC, DnCEI, DnCED, DnCEnC).[141] Abnormal and excess

[139] For estimating the significance level, a one tailed t-test was used for the DI category which had the alternative hypothesis that unexpected returns are greater than zero. Similarly, a one-tailed t-test was used for the DD group which had an alternative hypothesis that unexpected returns were less than zero. On the other hand, a two-tailed t-test was used for DnC events because in this instance the alternative hypothesis was that unexpected returns were not equal to zero.

[140] Confounding signals were documented for the UK (Lonie et al., 1996), for Australia (Easton, 1991) and for Ireland (McCluskey et al., 2006); however, in the US, Aharony and Swary (1980) analysed the isolated announcements of dividend and earnings.

[141] The literature showed a total of six groups for the dividend-earning changes (Kane et al., 1984; Easton, 1991; Lonie et al., 1996 and McCluskey et al., 2006); however, this current research constructed nine groups as 98 announcements had earning-no-change. The previous studies did not have the earning-no-change group of

returns were calculated for each group to measure the effect of the dividend-earning announcements on share prices and to analyse the interaction between the two disclosures. Moreover, the cumulative abnormal and excess returns for all nine groups were plotted on a graph to investigate whether any patterns were present around the announcement date. This graphical analysis was used to arrive at some preliminarily assessment about which of the two signals (dividends or earnings) appeared to be more dominant.

A more formal test for analysing the interaction effect between dividend and earnings announcements was conducted using regression analysis. The method first proposed by Kane et al. (1984) for the US data and subsequently employed by Easton (1991) for an Australian sample of firms and by Lonie et al. (1996) for UK observations was used. According to this model the cumulative abnormal returns for different periods were regressed against changes in DPS and EPS without or along with dummy variables for each dividend-earnings group. Therefore, the following regression models were constructed:

$$AR = \gamma_0 + \gamma_1 \Delta DPS_i + \gamma_2 \Delta EPS_i + U_i \quad [4.9]$$

$$AR = \delta_0 + \delta_1 \Delta DPS_i + \delta_2 \Delta EPS_i + \delta_3 (+, +) + \delta_4 (+, -) + \delta_5 (+, 0) + \delta_6 (-, +) + \delta_7 (-, 0) + \delta_8 (0, +) + \delta_9 (0, -) + \delta_{10} (0, 0) \quad [4.10]$$

Where, ΔDPS_i and ΔEPS_i is the percentage change in dividend and earnings of firm i respectively. (+, -) is the interaction dummy variable for the dividend increase and earning decrease (DIED) group while (+, 0) represent the DIEnC group. The remaining dummy variables are defined in a similar manner. A variable (-, -) representing the DDED group was excluded from the analysis to avoid multicollinearity; it was incorporated into the intercept

---

companies. Lonie et al. (1996) dropped three dividend announcements which were accompanied by earnings-no-change announcements; however, this study considered those announcements because of their number. The nine groups are: Dividend-Increase Earnings-Increase group (DIEI); Dividend-Increase Earnings-Decrease group (DIED); Dividend-Increase Earnings-no-Change group (DIEnC); Dividend-Decrease Earnings-Increase group (DDEI); Dividend-Decrease Earnings-Decrease group (DDED); Dividend-Decrease Earnings-no-Change group (DDEnC); Dividend-no-Change Earnings Increase group (DnCEI); Dividend-no-Change Earning Decrease group (DnCED) and Dividend-no-Change Earnings-no-Change (DnCEnC).

term of the regression equation (Kane et al., 1984). Therefore, the research assumed a negative value for the intercept to represent the joint bad news of DDED firms.

The actual test of interaction is given by an F-Statistic (Kane et al., 1984; Easton, 1991; Abayratna, 1994); this was calculated for testing the null hypothesis of no-interaction between dividend and earnings news – any supportive or conflicting signals do not convey information to the market. This hypothesis is tested using "interaction" F-Statistics which compare the explanatory power of the unrestricted model (Equation 4.10) over the restricted equation (Equation 4.9) in explaining the abnormal returns for the sample (Abayratna, 1994). The interaction F-Statistic shows the joint significance of the dummy variables (Kane et al., 1984; Easton, 1991). In addition, "first-order" F-Statistics is calculated to test the significance of dividend and earnings changes. According to the information content hypothesis, both the coefficients of dividend and earnings should be positive and significantly associated with the abnormal returns. Section 5.5.5 provides more details about the calculation of the F-statistic.

4.5.2 Interviews

An interview is a conversation with an individual who is engaged in some particular task (Maykut and Morehouse, 1994). Interviews are used instead of questionnaires in the current thesis as: (i) interviews are a good source of data collection about the organisational cultures of different firms operating in various industries; and (ii) interviews provide good insights about an interviewee's attitude, opinions, values, experiences, background and practices (May, 2005). Therefore, interviews introduce depth and validity into the findings while studying from within the culture of the interviewees (Hussey and Hussey, 1997; Neuman, 2000). Moreover, the culture of the country also matters in the current investigation as most of the people in Pakistan do not respond to questionnaires. One of the reasons behind the low response rate to questionnaires in Pakistan is the lack of an efficient infrastructure in

terms of a reliable postal services and internet facilities. The frequent electricity power cuts (ranging from 2 hours to 20 hours per day) exacerbate this problem since individuals often do not have time to fill in questionnaires as they are too busy. Moreover, conducting interviews was a new experience for managers and financial analysts;[142] as a result, many respondents had concerns about the misuse of such information and were suspicions about the motives of the researcher. In such cases, face-to-face interviews were preferable in order to allay any fears of the respondents before getting answers to questions. Indeed, because of their concerns about what their comments might be used for, only eight interviewees gave permission to tape their interviews. Nevertheless, interviews were preferred to questionnaires as some questions which emerged as a result of preliminary results from the event study needed more detailed discussion which would not have been possible if questionnaires had been employed. Moreover, the preliminary results of the event study highlighted some objective and structured questions for the interviews; such questions suggest that semi-structured interviews would be appropriate.[143]

Semi-structured interviews are therefore used in this study; alternatives such as unstructured and structured interviews are not used because of their lack of flexibility and sequence of asking questions (Sekeran, 2002; Bryman, 2004; Kumar, 2005; May, 2005). The distinction between structured and un-structured interview is highlighted by May (2005) as follows:

> "In moving from the structured interview to the unstructured interview, researchers shift from a situation in which they attempt to control the interview through predetermining questions and thus 'teach' the respondent to reply in accordance with the interview schedule (standardization), to one in which the respondent is encouraged to answer a question in their own terms." (p. 321)

[142] The research culture in country has recently been emerged after re-structuring of Higher Education Commission (HEC) of Pakistan in 2002. (www.hec.gov.pk)

[143] The dearth of prior work in the area also suggested that semi-structured interviews might be the more appropriate research vehicle for ascertaining the views of the participants.

By contrast, in semi-structured interviews, questions are prepared in advance which enables the researcher to focus on the particular areas that he/she wishes to discuss while providing the interviewee with the flexibility to respond in the manner which they believe to be most appropriate. Bryman (2004) describe the semi-structured interview process as follows:

> "The researcher has a list of questions or fairly specific topics to be covered, often referred to as an interview guide, but the interviewee has a great deal of leeway in how to reply. Questions may not follow on exactly in the way outlined on schedule. Questions that are not included in the guide may be asked as the interviewer picks up on things said by interviewees. But, by and large, all of the questions will be asked and a similar wording will be used from interviewee to interviewee... [and] the interview process is flexible." (p. 321)

Therefore, the semi-structured interview is more flexible as it allows the researcher to ask questions about issues that arise during the interviews which is not possible in more structured interviews. It also permits the interviewee to clarify any ambiguity in the answers during the interview itself (Ryan et al., 2002; Bryman, 2004). In addition, semi-structured interviews allow a researcher to ask new questions that arise as a consequence of the discussion which has taken place.

For these reasons, semi-structured interviews were used to ascertain the perceptions of the finance directors about how they decide upon the dividend policies of their firms and how these policies are perceived by investors (financial analysts). For this thesis, 23 company officials and 16 financial analysts are interviewed. The sample was selected on the basis of availability of respondents, while keeping in mind the need to have a diverse group of interviewees. Most of the respondents agreed to take part following personal contact or via contact with friends and family members. This process was intended to encourage the respondents to share information without fear that such information would be misused by the researcher. The researcher faced difficulties when attempting to visit company for interviews

due to the law and order situation in Pakistan at that time.[144] Because of these, two interviews were conducted via the telephone. Furthermore, the interviews were costly to conductsince travel an accommodation expenses were sizable.[145]

The questions guiding the interviews were prepared in advance for both types of respondents. The company officials were asked about the determinants of dividend policy (with special emphasis on the target payout ratio) and the signalling effect of dividend announcements. However, the financial analysts were only interviewed about the information content of dividends. The issues covered in the semi-structured questionnaire were based on careful examination of the literature review and the results of the event study;[146] for example, a question about the existence of information leakage was included given the evidence of such an occurrence in the event study. The questions were drafted in English instead of the national language Urdu, as all the respondents understood English. The responses were made in a mix of both languages, necessitating translation to English in some cases. Prior to interviews, the documents were carefully studied to ensure the absence of repetition of questions, in order to avoid uncertainty and confusion among the respondents (Saunders et al. 2007).

Before each interview, the researcher browsed the internet to gain some idea of the nature of organisation and its financial health. This process provided confidence to the researcher during the conversation with the interviewees. A conversational approach was used during the interviews to allow individual respondents space to express their opinions in detail while at the same time ensuring that all the questions were answered. Prior to the start of each conversation, interviewees were given assurance that the interview did not require any theoretical or academic understanding, but dealt instead with the practices which

[144] For example, on 5th May 2010, when the researcher tries to travel from Bannu to Peshawar, he was stopped because of the military roadblocks because of a bomb which had detonated near Badabara police check post.
[145] For example, the researcher spent about £1,500 on travel and had to stay 25 nights at hotel in Islamabad in order to conduct the interviews.
[146] The semi-structured questionnaire documents are provided in Appendix 6.3 and 6.4.

prevailed in companies regarding dividend policy. Moreover, respondents were assured that the company would not be labelled or analysed individually, in order to keep its confidentiality.

The interviews followed a "funnel" approach (Sekeran, 2002). Under such approach, the interviewees were initially asked general questions; more specific questions then followed. Each interviewee was consulted beforehand about their availability for a meeting and sent a copy of the semi-structured interview documents in some cases.[147] Some interviews are taped subject to the permission of the respondents. These recorded interviews were transcribed and important quotations noted down. In addition, complete notes are taken for all interviews during and immediately after the interviews. For the purpose of this analysis, a unique code was assigned to each interviewee in order to maintain the anonymity of the respondents and to protect the identity of their organisations. As Section 4.4 discussed, some interview questions were objective while others were rather subjective; so there was an element of objectivity to the interviews as well as in the event study. A spreadsheet was used to enter a summary of the interviewees' responses to each question and percentages were then calculated for the proportion of the sample who offered a similar perspective on an issue raised. Chapter 6 gives details about the procedures employed and sample information for the interviewees.

4.6 Conclusion

The chapter had provided details about the methodology and methods used in the thesis. Overall, Burrell and Morgan's (1979) paradigms are employed as the basis for outlining the methodology used in the current work. The research focuses on both

[147] Sending a copy in advance may have led to some 'planned' answers. However, this was done in order to reduce the anxiety of respondents about the contents of questions that would be asked during interviews. The reduction of anxiety was to outweigh any difficulties caused by the possibility that some answers would be "prepared" in advance.

quantitative and qualitative methods to elaborate the dividend decision process and the value attached to dividend announcements. The conventional event study using the market model was used to calculate any unexpected returns around dividend announcements, as more complicated models tend not to outperform the market model (Brown and Warner, 1980; 1985). On the qualitative side, semi-structured interviews with company executives and financial analysts were considered suitable for the research, as this method can help to answer the research questions which providing more flexibility for respondents. Company executives are asked about the determinants of their firms' dividend policies and how the market responds to the dividend signal while financial analysts are only asked about whether dividends act as a signal. The results of the event study are discussed in Chapter 5 and interview findings are the focus of Chapter 6.

CHAPTER 5

SHARE PRICE REACTIONS AROUND DIVIDEND ANNOUNCEMENTS BY PAKISTANI FIRMS

5.1 Introduction

This chapter outlines the impact of dividend announcements on the share prices of firms listed on the KSE in order to investigate the information content of the dividend announcements (Pettit, 1972). The findings reported in the current chapter should therefore add to a literature that has concentrated mainly on the information content of dividend announcements in developed markets. According to the dividend signalling hypothesis, the announcement of an increase (decrease) in dividends should have a positive (negative) impact on share prices. By contrast, news that dividends are to remain unchanged should be associated with normal returns.[148]

There are a number of reasons why the information content of dividends needs to be studied in emerging stock markets, in particular the KSE. Firstly, this area of finance is relatively under-explored in Pakistan. An in-depth analysis of the information content of dividends may therefore supply useful insights about the relative importance attached to dividend disbursements by Pakistani investors and complement the interview-based findings reported in Chapter 6. Secondly, and more generally, the information content of dividends has been comprehensively studied in developed stock markets throughout the world; relatively little work has been conducted regarding the news conveyed by dividend announcements in emerging stock markets. However, in emerging markets one could argue that dividend announcements may convey more news to outside investors since firms typically supply less information about their operations or performances (Al-Abdulqader, 2003) and the investor analyst community is often relatively small and their reports not widely disseminated (Tijjani, 2008; Almujamed, 2011). In addition, the dividend signal is often one of the few pieces of information studied by the sizeable number of relatively unsophisticated investors who tend to dominate emerging market investment (Tijjani,

[148] Implicitly, this wording of the information content of dividend hypothesis assumes that the expected dividend is equal to last year's payment. Such an assumption is common in this literature (e.g. Abayratna, 1994; Lonie et al., 1996; McCluskey et al., 2006)

2008).[149] Thirdly, this research will help investors to decide whether or not to invest around the time of dividend announcements by exploiting any weak-form inefficiency in the form of a slow market response to dividend news. Finally, the research project should provide some relevant insights for policy makers and legislators concerned with laws related to corporate information disclosure and about the speed at which dividend announcements reach the stock exchanges in Pakistan.

The remainder of the chapter is organised as follow. Section 5.2 shows the research approach and the hypotheses to be tested in the chapter. Section 5.3 provides details about the data sample while Section 5.4 elaborates on the methods of calculating unexpected returns around dividend announcements. The empirical results from using the event study are discussed in Section 5.5 and finally, Section 5.6 concludes the chapter.

5.2 Research Approach and Hypotheses

The previous chapter supplied detailed information about the research approach used to examine the impact of dividend announcements on share prices. A brief description of the approach employed and related hypotheses to be tested are discussed in the current section of this chapter in order to summarise the choices that were made.

A conventional event study analysis based upon the market model (as per Pettit, 1972) and market adjusted returns model is used to detect the presence of any abnormal or excess returns around the dividend announcement dates. From an inspection of the announcement data and an examination of the interview findings it appears that most listed Pakistani firms declare their earnings and dividend announcements simultaneously. As noted by Lonie et al. (1996), these joint announcements make it difficult to differentiate the impacts of dividend

[149] It should be acknowledged that an alternative line of argument exists where shares in emerging market are thinly traded (Al-Abdulqader, 2003), that detection of a stock market response to dividend announcements is unlikely. Furthermore, with many owner-manager firms, the news component of the dividend announcement may be relatively small since any information being conveyed may already be impounded in share prices because of insider trading on their privileged knowledge (Hassan and Power, 2009).

and earnings announcements on share returns. In these cases, an interaction effect between dividend and earnings is usually studied. Therefore, two main hypotheses are tested in the current chapter:

H1: An announcement of a change in dividend conveys information which affects the share prices of the firm.[150]

H2: The interaction between dividend and earnings signals jointly influence share prices at the time when the joint announcements are published.

5.3 Data and Sample

The sample selected for the analysis was drawn from all of the listed firms on the KSE. The selection of listed companies for including in the final sample was based on the availability of adjusted share prices on Datastream. There were 597 such firms listed on the KSE whose data were available from this data source at the end of 2009. From the population of 597 firms, 360 companies did not have adjusted prices; therefore, the sample was reduced to 237 companies with adjusted price.

The dividend announcements were taken from the official website of the KSE over the period 2005-09.[151] Twelve of the firms did not have complete data over this timeframe, so these were excluded from the final sample reducing the number of firms to 225. However, 23[152] of these firms did not declare any dividend over the sample period and so, the final sample size was reduced to 202 firms. Not all the firms declared their dividend on a quarterly

[150] H1 is split into many sub-hypotheses once the different changes in dividend are analysed separately.

[151] The data were only available from the KSE website from 2005 onward. The KSE also issues a daily newsletter about the market performance which includes dividend and earnings announcements; however, it was difficult to obtain all of these newsletters due to time constraints and missing issues in the different libraries that were checked.

[152] These firms were excluded from the DnC group even though their no-payment of dividend meant that their disbursement did not change every year. However, their exclusion should not affect the results since they would not have been included in the test of interaction since the ΔDPS and ΔEPS would have been zero.

or semi-annual basis[153]; however each made at least one announcement per year. So, annual dividend announcements were selected for testing the impact of the information content hypothesis on share prices. As noted above, in Pakistan, most firms publish their earnings and dividend announcements simultaneously and so the annual earnings announcements were also selected for investigation.[154] An inspection of the data showed [see Appendix 5.1] that the announcement dates were spread over different months and occurred on different working days of the calendar year; thus, event date clustering and its attendant issues were not likely to be an issue (Strong, 1992).

Table 5.1 Information about the Sample Firms

Sectors	Number	Market Capitalisation (Rs. Billion)	Volume Traded (Rs.)
Cotton and Other Textiles	34	57.4	13,916.9
Chemical and Pharmacy	22	257.5	26,693.7
Engineering	11	24.4	853.8
Auto and Allied	10	53.6	378.3
Sugar and Allied	12	105.1	335.5
Paper and Board	2	2.9	36.6
Cables and Electric Goods	2	1.4	20.8
Cement	19	70.4	17,762.9
Fuel and Energy	17	946.4	206,53.3
Transport and Communication	4	84.4	5,872.5
Bank and Financial Institutions	51	499.2	36,359.3
Miscellaneous	18	125.3	60.5
TOTAL	202	2,228.0	

Note: The tables shows the sample companies with market capitalisation and traded volume on 31/12/2009.

An analysis of the data showed that 71 of the sample firms declared dividends in each of the five years; 26 in four of the years; 22 in three of the years; 31 in two of the years; with 52 firms declaring a dividend only once in the five years period. The final sample therefore

[153] For example, in 2009, 18 firms declared semi-annual dividend while 7 companies paid quarter dividends besides the annual dividend disbursements.

[154] The SECP made it compulsory for listed firms to publish their financial statements on a quarterly basis (Code of Corporate Governance, 2002, Section (xx)). The quarterly reports include the earnings per share (EPS) details as well as whether the dividend was announced or not. As mentioned in Chapter 2, all announcements about earnings and dividends must be disclosed via the stock exchange after a firm's BoD meeting so the dividend and earnings announcements are made usually on the same day.

comprised 639 dividend announcements made by 202 firms listed on the KSE over a period 2005-09. Table 5.1 provides information about the sectoral distribution of the sample firms.[155]

A visual inspection of this table indicates that a wide range of companies is represented in the final sample; the smallest number of firms (2) is drawn from the 'Paper and Board' and 'Cable and Electric goods' sectors while the largest number (51) are from the 'Banks and Financial Institutions' industry. A closer inspection of the table depicts that 'Fuel and Energy' sector has the highest market capitalisation (Rs. 946.4 billion) while 'Chemical and Pharmacy' industry has the highest volume traded (Rs. 26,693.70) on the 31/12/2009. Moreover, the total market capitalisation of the 202 sample firms constitutes about 80.0% of the total market capitalisation of the KSE (Rs. 2,716.0 billion) in 2009.

To calculate the change in dividend, dividend per share (DPS) data was collected from DataStream.[156] There are a number of reasons for focusing on DPS instead of the total dividend paid. Firstly, the SECP have mandated that firms announce dividends in the form of DPS instead of as a total dividend amount. Secondly, the DPS values incorporate any change in a firm's equity capital base over the period, facilitating a comparison of disbursements from one year to another. Finally, DPS data have been analysed in other studies examining the information content of dividends (e.g. Kane et al., 1984; Easton, 1991; Lonie et al., 1996; McCluskey et al., 2006); the use of a similar measure in the current investigation allows the results of this thesis to be contrasted with the findings from the substantive literature. Earnings per share (EPS) data were used instead of total earnings for similar reasons.

[155] The research adopts the same industrial categorization as that employed by the Ministry of Finance in Pakistan for their Economic Survey 2008-09.

[156] The annual DPS figures for Pakistani firms in DataStream is based on the data for the first quarter of DPS; double checking the data with the original source of the dividend information in the annual reports of the companies revealed that the annual DPS is announced in the fourth quarter. Therefore, the study considers the DPS data published in the fourth quarter as the annual DPS.

Daily returns [R_{it}] were calculated using the share prices for the 202 firms over the period 1/1/2005-31/12/2009. The natural log of the relative prices was estimated according to equation [5.1] to mitigate any problems with non-normality in the data (Strong, 1992):

$$R_{it} = Ln(P_{it}/P_{it-1}) \quad [5.1]$$

Where Ln is the natural log; P_{it} represents the share prices of firm i on day t and P_{it-1} is the share price of firm i on the previous day. Market returns (R_m) were estimated using a similar approach. Specifically, equation [5.2] was estimated for the KSE-100 index using natural logs as follows:

$$R_m = Ln(KSE100_t/KSE100_{t-1}) \quad [5.2]$$

Lintner (1956) stated that "most management sought to avoid making changes in their dividend rates that might have to be reversed within a year or so" (p. 99) suggesting that forecast dividends will not differ markedly from the dividend paid in the previous year. Therefore, a naive expectations model was used to forecast the expected dividend; this model suggests that the dividend anticipated by investors in one period is equal to the actual disbursement paid in the previous period (Aharony and Swary, 1980; Kane et al., 1984; Easton, 1991); the expected dividend is therefore:

$$E(D_{it}) = D_{it-1} \quad [5.3]$$

where D_{it-1} is the DPS of firm i for the previous period and E (D_{it}) is the expected dividend of the same firm in the current year.

For comparison purposes, the dividend announcements were divided into three categories. Of the total of 639 dividend announcements, 273 related to increases in DPS (DI), 184 involved reductions (DD) and the remaining 182 were cases where the dividend had not changed (DNC). The change in DPS was measured as the absolute difference between the dividends paid from one year to the next:

$$\Delta DPS = DPS_{it} - DPS_{it-1} \quad [5.4]$$

To estimate the interaction effect between dividend and earnings announcements, unexpected earnings were determined by assuming that annual earnings follow a random walk process (Little, 1962; Ball and Watts, 1972; Watts and Leftwich, 1977). According to this random walk model the change in earnings from one period to another is unpredictable, so expected earnings is equal to the previous year's earnings. Based on this random walk assumption, the absolute change in EPS was computed by comparing the EPS of the current year with its counterpart in the previous year:

$$\Delta EPS_{it} = EPS_{it} - EPS_{it-1} \qquad [5.5]$$

where ΔEPS is the change in EPS, EPS_{it} is the actual EPS of firm i for the current year and EPS_{it-1} indicates the EPS for the previous year.

Table 5.2 Sample Classification based on Changes in Dividends and Earnings

Earnings Change / Dividend Change	Increase	Decrease	No-Change	**Total**
Increase	191	56	26	**273**
Decrease	86	76	22	**184**
No-Change	77	55	50	**182**
Total	**354**	**187**	**98**	**639**

Note: The table shows the number of observations on the basis of dividend-earning changes.

Table 5.2 classifies the 639 events-observations into nine groups based on the absolute change in DPS and EPS. An analysis of this table reveals that the largest group was the one containing 191 announcements of increases in both EPS and DPS. Surprisingly, there were a sizable number of instances where the two announcements (earnings and dividends) generated conflicting signals. In 86 cases (13.5%), firms cut their dividend despite announcing an increase in EPS while the opposite was true on 56 occasions (8.7%). The proportion of "mixed" signals found here is slightly larger than that documented by Lonie et al. (1996) for the UK, McCluskey et al. (2006) for Ireland, Easton (1991) for Australia and

Kane et al. (1984) for the US. For example, Lonie et al. (1996) documented only 12 instances (1.9%) where firms reduced their DPS despite announcing an increase in earnings. Similarly, McCluskey et al. (2006) found only 23 occasions (3.4%) of such events. One notable feature of Table 5.2 is that it reveals a sizable number of earnings-no-change cases, none of which have been documented in previous studies. For example, in 50 cases firms announced no-change in dividend or earnings while there were 26 events where an increase in dividend occurred despite no change in earnings.

5.4 Abnormal Returns and Excess Returns

Unexpected returns (UR_{it}) were calculated over a 21-day period from day t-10 to day t+10 centered on the dividend announcement dates according to the formula:

$$UR_{it} = R_{it} - E(R_{it}) \qquad [5.6]$$

Where R_{it} is the actual return on share i on day t and $E(R_{it})$ is the expected return for this security on the same day. Two measures of expected returns were calculated. First, the conventional market model (Strong, 1992) was used whereby:

$$E(R_{it}) = \alpha_i + \beta_i(R_{mt}) + e_{it} \qquad [5.7]$$

where R_{mt} is the return on the market index (proxied by the KSE-100 index); Equation [5.7] was estimated for a period of 100 trading days i.e., day_{t-11} to day_{t-111} prior to the event period for each dividend announcement. Because estimates of beta coefficients may be biased because of thin trading problems in an emerging market such as the KSE (Tijjani, 2008), excess returns were also generated on the assumption that the expected return on each firm's shares was equal to the market return, proxied for again by the KSE-100 index. Therefore, excess returns were the difference between the actual returns and market returns; implicitly every share is assumed to have a beta of 1.0 for the event periods being examined. Formally, the excess returns were thus:

$$ExR_{it} = R_{it} - R_{mt} \quad [5.8]$$

where ExR_{it} is the excess return of security i at time t, R_{it} is the actual return on security i at time t and R_{mt} is the return on the market index at time t. Day t_0 is the announcement date as per the KSE website.

5.5 Empirical Findings

5.5.1 Share Prices Behaviour around 21-day Event Window

Table 5.3 documents the abnormal and excess returns for the 21-day event period around the dividend announcement dates. The median as well as mean abnormal and excess returns were computed in case any outliers in the data biased the average values reported. The standard deviations are provided in order to supply some insight into the spread of abnormal and excess returns around the mean values. A t-test was used to determine the statistical significance of mean values while a non-parametric Wilcoxon signed rank test[157] was employed to investigate the significance of the median values.

A number of findings emerge from a visual inspection of Table 5.3. First, there appears to be no significant share price reaction to the news of the dividend announcement on day t_0 (Watts, 1973; Mollah, 2001; Uddin, 2003; Kaleem and Salahuddin, 2006; Rishma et al., 2007). The mean (median) abnormal return was small at 0.3% (-0.051%) but the p-value was higher than the 5.0% critical value. Thus, in terms of the first hypothesis, the null of the dividend announcement having no information content in Pakistan cannot be rejected. Instead, the results in the current study suggest that on the announcement day, dividends do not appear to signal any news to investors which causes them to revise their beliefs about the worth of the sample company's shares; such a lack of impact is consistent with the semi-strong form of the efficient market hypothesis. One reason for these insignificant unexpected

[157] It is worth acknowledging Brown and Warner's (1980) suggestion that: "t-tests...are reasonably well-specified....on the other hand, certain non-parametric tests used in event studies are not correctly specified....unless [there is] asymmetry in the distribution." (pp. 248-249)

Table 5.3 Share Price Performance around the Dividend Announcement Date

	ABNORMAL RETURNS			EXCESS RETURNS		
DAY	**Mean**	**Median**	**SD**	**Mean**	**Median**	**SD**
t-10	-0.00236 (0.039)*	-0.00029 (0.132)	0.02875	-0.00188 (0.110)	-0.00010 (0.250)	0.02974
t-9	0.00290 (0.138)	-0.00033 (0.581)	0.04939	0.00253 (0.198)	-0.00050 (0.311)	0.04960
t-8	0.00044 (0.738)	-0.00033 (0.953)	0.03308	0.00009 (0.947)	0.00000 (0.958)	0.03393
t-7	-0.00234 (0.334)	-0.00011 (0.884)	0.06112	-0.00303 (0.217)	0.00000 (0.493)	0.06203
t-6	0.00110 (0.254)	0.00000 (0.295)	0.02440	0.00066 (0.526)	0.00000 (0.658)	0.02622
t-5	0.00198 (0.083)	0.00000 (0.225)	0.02886	0.178 (0.136)	0.00000 (0.426)	0.03007
t-4	0.00451 (0.194)	0.00000 (0.180)	0.08768	0.00399 (0.251)	0.00000 (0.283)	0.08766
t-3	0.00261 (0.334)	-0.00017 (0.321)	0.06832	0.00257 (0.341)	0.00000 (0.387)	0.06820
t-2	0.00476 (0.006)*	0.00000 (0.075)	0.04393	0.00504 (0.004)*	0.00010 (0.058)	0.04446
t-1	0.00219 (0.081)	0.00000 (0.345)	0.03176	0.00162 (0.203)	0.00000 (0.865)	0.03233
t_0	0.00260 (0.139)	-0.00051 (0.787)	0.04430	0.00111 (0.534)	-0.00240 (0.225)	0.04501
t+1	0.00408 (0.126)	-0.00054 (0.671)	0.06735	0.00076 (0.630)	-0.00030 (0.385)	0.03977
t+2	0.00277 (0.307)	-0.00043 (0.266)	0.06846	-0.00055 (0.694)	-0.00020 (0.165)	0.03538
t+3	0.00349 (0.180)	-0.00056 (0.133)	0.06581	-0.00096 (0.479)	-0.00150 (0.002)*	0.03426
t+4	0.00090 (0.724)	-0.00049 (0.030)*	0.06420	-0.00349 (0.001)*	-0.00090 (0.001)*	0.02612
t+5	0.00135 (0.592)	-0.00066 (0.007)*	0.06638	-0.00222 (0.037)*	-0.00150 (0.002)*	0.02683
t+6	0.0056 (0.025)*	0.00000 (0.430)	0.06376	0.00092 (0.421)	0.00000 (0.539)	0.02879
t+7	0.0032 (0.244)	-0.00030 (0.899)	0.07202	-0.00049 (0.772)	0.00000 (0.793)	0.04268
t+8	0.00286 (0.239)	-0.00050 (0.184)	0.06129	-0.000421 (0.655)	0.00000 (0.349)	0.02379
t+9	0.00358 (0.161)	-0.00024 (0.630)	0.06437	-0.00044 (0.691)	0.00000 (0.200)	0.02810
t+10	0.00162 (0.533)	-0.00033 (0.118)	0.06574	-0.00091 (0.443)	0.00000 (0.375)	0.02992

Note: An * indicates significance at the 5% level on a two-tailed basis. The figures in parenthesis are p-values. The p-values for the means are based on a one-sample t-test and for the medians are based on the Wilcoxon Signed Rank test. SD is the standard deviation around the mean values.

returns is that owner-managers are the major shareholders as 40.0% of the equity shares in the Pakistani market are owned by directors and promoters (Lukman, 2010). Therefore, such information may be impounded in the share prices before the formal announcements and do not surprise many shareholders (Mollah, 2001).

Second, the results in Table 5.3 suggest that one reason why there is no significant abnormal return on day t_0 might be information leakage to the market before the publication of the dividend news. For example, the second largest mean abnormal return documented in Table 5.3 is reported for day t-2; this mean value of 0.5% is statistically significant. The result is similar to Uddin (2003) for Bangladeshi sample and Kaleem and Salahuddin (2006) for Pakistani data; both found significant returns a few days before the announcement date. However, on day t-10, another statistically significant abnormal return is documented; however, in this instance, the mean value is negative (-0.2%) suggesting that if the price movement does indeed reflect the forthcoming payout signal, the market anticipated that the news would be negative, on average.

Third, there is also some support for the argument that the market took time to fully assimilate the news contained in the dividend announcement; the largest mean abnormal return of 0.6% during the event window is recorded for day t+6 implying that investors responded favourably to the dividend signal, on average, about one week after the information was first disclosed (Thirumalvalavan and Sunitha, 2006). Fourth, the median abnormal results suggest that the mean findings may be influenced by a few large values. The median abnormal return values are generally very small in absolute terms, ranging from a low of -0.06% on day t+5 to a high of 0.0% (day t-6, day t-5, day t-4, day t-2, day t-1 and day t+6). In general, the figures tend to be zero before the dividend announcement date and negative afterwards (except day t+6) indicating that the market responded to the change in DPS as if it were a poor signal. In fact, two of the negative median abnormal returns found

after day t_0 are statistically significant, supporting the view that the Pakistan market takes time to respond to the dividend information (Thirumalvalavan and Sunitha, 2006). Specifically, on day t+4 (median = -0.05%) and day t+5 (median = -0.07%) the p-values for the median statistics were less than the critical value of 0.05.

Fifth, the results for the excess returns, shown in the last three columns of Table 5.3, support the findings for the abnormal returns in the same table. Again there is no statistically significant stock market reaction on the day of the dividend announcement, but there is a statistically significant positive mean excess return of 0.5% documented on day t-2 (Uddin, 2003; Kaleem and Salahuddin, 2006). Both the mean and median excess returns are generally negative after the dividend announcement date; as with the abnormal returns, on days t+4 and t+5, the null hypothesis of no significant mean or median excess return is convincingly rejected since the p-values are all small. The excess return results therefore suggest that the abnormal return findings are not driven primarily by the risk estimate calculated; even when every share in assumed to have a beta of one, similar results emerge.

Finally, it is apparent from Table 5.3 that the standard deviation values are large relative to their mean abnormal and excess return counterparts. For the abnormal returns, they range from 2.4% on day t-6 to 8.7% on day t-4. With the excess returns a similar range of standard deviation values is obtained; they vary from a low of 2.4% on day t+8 to a high of 8.8% on day t-4. The variability in the returns earned may explain why none of the abnormal or expected returns on day t_0 are significant. This issue is addressed in the next section where disaggregated findings are presented for dividend increase, dividend decrease and dividend-no-change sub-samples.

5.5.1 Share Performance Around Different Changes in the Dividend Level

Table 5.3 reports the share price performances for all dividend announcements irrespective of the changes in DPS being published. However, the dividend signalling hypothesis argues that the impact on share price will differ according to the nature of the announcement. The hypothesis asserts that a dividend increase will be associated with positive unexpected returns; a dividend decrease will be associated with negative unexpected returns while only normal returns are anticipated when no dividend change is announced (Pettit, 1972). This section of the chapter therefore examines the share price performance of the sample firms, grouped according to the direction of the dividend change.

Table 5.4 reports the abnormal and excess returns for the DI announcements around the 21-day event period. As with Table 5.3, the first column indicates the day in the event period for which the share price performance is being studied. The next three columns report the mean, median and standard deviation values for the abnormal returns, where expected returns are determined according to the market model. The final three columns document results for the excess returns, where expected returns are set equal to the return on the KSE-100 index. According to the information content hypothesis, a dividend increase represents good news and should be associated with a statistically significant positive unexpected return. In this case, given the one-directional nature of the predicted impact on share prices of the announcements, one-tailed significance testing is used.

A number of conclusions can be drawn from the results. First, in contrast to the predictions of the information content hypothesis, the findings indicate that mean and median abnormal returns were not statistically different from zero on the dividend announcement day. In fact, on day t_0, the mean abnormal return was large and positive at 0.3% but the p-value of 0.09 was higher than the critical number of 0.05. By contrast, the median abnormal return was negative (-0.1%), but was again not significant at the 5.0% level.

Table 5.4 Share Price Performance around the Dividend-Increase Announcements

	ABNORMAL RETURNS			EXCESS RETURNS		
DAY	Mean	Median	SD	Mean	Median	SD
t-10	-0.00071 (0.715)	-0.00059 (0.854)	0.02052	-0.00064 (0.649)	0.00000 (0.612)	0.02766
t-9	0.00332 (0.135)	-0.00068 (0.795)	0.04954	0.00424 (0.148)	-0.00140 (0.952)	0.04380
t-8	-0.00029 (0.563)	-0.00033 (0.592)	0.03023	-0.00185 (0.757)	0.00000 (0.602)	0.03603
t-7	-0.00764 (0.928)	-0.00133 (0.940)	0.02569	-0.00180 (0.795)	0.00000 (0.827)	0.02297
t-6	-0.00071 (0.711)	-0.00032 (0.782)	0.02116	0.00272 (0.026)*	0.00000 (0.080)	0.03136
t-5	0.00295 (0.032)*	-0.00048 (0.164)	0.02624	0.00261 (0.085)	0.00000 (0.068)	0.06696
t-4	0.00077 (0.347)	-0.00004 (0.325)	0.03258	0.00779 (0.156)	0.00000 (0.154)	0.12730
t-3	0.00724 (0.115)	-0.00026 (0.794)	0.09929	0.00332 (0.161)	0.00000 (0.508)	0.05526
t-2	0.00093 (0.267)	0.00024 (0.312)	0.02455	0.00475 (0.011)*	0.00010 (0.088)	0.03384
t-1	0.00236 (0.072)	0.00000 (0.151)	0.02666	0.00102 (0.296)	0.00000 (0.539)	0.03145
t_0	0.00342 (0.091)	-0.00082 (0.367)	0.04221	0.00045 (0.439)	-0.00430 (0.917)	0.03688
t+1	0.00325 (0.044)*	-0.00033 (0.161)	0.03139	0.00023 (0.460)	-0.00090 (0.747)	0.04881
t+2	-0.00127 (0.721)	-0.00089 (0.842)	0.03580	-0.00312 (0.924)	-0.00030 (0.956)	0.03581
t+3	0.00266 (0.070)	-0.00008 (0.420)	0.02966	-0.00096 (0.680)	-0.00150 (0.989)	0.03392
t+4	-0.00137 (0.861)	-0.00072 (0.957)	0.02074	-0.00124 (0.840)	-0.00030 (0.958)	0.02056
t+5	0.00087 (0.278)	-0.00027 (0.502)	0.02427	-0.00074 (0.654)	-0.00030 (0.766)	0.03087
t+6	0.00185 (0.086)	0.00000 (0.264)	0.02222	0.00223 (0.137)	0.00000 (0.347)	0.03361
t+7	0.00123 (0.151)	-0.00051 (0.567)	0.01975	0.00064 (0.346)	0.00000 (0.314)	0.02680
t+8	-0.00200 (0.913)	-0.00165 (0.987)	0.02422	-0.00021 (0.553)	0.00000 (0.719)	0.02552
t+9	0.00127 (0.192)	-0.00059 (0.634)	0.02396	0.00007 (0.485)	0.00000 (0.797)	0.03277
t+10	-0.00128 (0.795)	-0.00048 (0.873)	0.02569	0.00036 (0.438)	0.00000 (0.178)	0.03786

Note: An * indicates significance at the 5% level on the basis of one-tailed analysis. The figures in parenthesis are p-values. The p-values for the means are based on a one-sample t-test and for the medians are based on the Wilcoxon Signed Rank test. SD is the standard deviation of respective mean values.

Second, Table 5.4 also documents positive mean abnormal returns starting from day t-5 to day t+1. The day t-5 mean abnormal value of 0.3% is significant, suggesting that the market responds favourably to the DI news a week before it is disclosed. In addition, a significant positive mean abnormal return is observed on day t+1, with a value of 0.3%. This implies that the good news is further impounded in share prices immediately after the announcement date.

Third, and rather surprisingly, the median abnormal returns are negative on 18 of the 21 days examined (Akbar and Baig, 2010). Whilst, none of the values is significantly different from zero, this evidence suggests that mean returns may be influenced by a few large positive values.[158]

Fourth, the results for the excess returns generally corroborate the abnormal return findings in that very few of the mean and median values reported are statistically significant. Also, as with the mean abnormal returns, the positive trend in returns is present prior to the announcement (in this case on day t-6) running through to day t+1; again the day t-6 and day t-2 figures are (0.3% and 0.5% respectively) significant. The one difference between these two sets of results relates to the mean excess return on day t-2. The significant value on day t-2 suggests that the positive mean abnormal and excess returns for the entire sample of 639 events are partially driven by dividend-increase group. This result also suggests that there may be some news leakage just before the increase in dividend is announced to the market. As with the abnormal returns, the median excess returns for the whole period were not significantly different from zero; however, the values are generally positive in two-thirds of the case, as compared to the dominance of negative values for median abnormal returns.

Finally, Table 5.4 shows the amount of standard deviation for the abnormal and excess returns. A high range of standard deviations exist for the mean abnormal and excess

[158] The median abnormal returns ranging from a low of -0.09% on day t+2 to a high of 0.02% on day t-2.

returns; for the former, the standard deviations range from a low of 1.9% on day t+7 to a high of 9.9% on day t-3. For excess returns, the values range from a low of 2.1% to a high of 12.7%. In general, however, the results for the DI firms suggest that the shares of Pakistani firms are not as responsive to news of dividend increases as are their counterparts in other markets such as Lonie et al. (1996) for the UK and McCluskey et al. (2006) for Ireland. In comparing the figures of the whole sample results in Table 5.4, the most obvious difference is the drop off in values for abnormal returns for the DI group, a pattern not observed in Table 5.3. This evidence suggests an element of uncertainty resolution following the announcement of an increase in payout (Brown et al., 1993).

Table 5.5 shows the share price performance for the dividend-decrease (DD) sub-group over the 21-day event period. The literature discussed in Chapter 3 suggests that in a world of information asymmetry, a decrease in the dividend signals pessimistic news to the market; this negative signal should lead to a decrease in share prices. The signalling literature, therefore suggests that abnormal and excess returns for firms which cut their dividend should be less than zero on the announcement date.

Consistent with the findings from Table 5.3 and 5.4, the results in Table 5.5 are less than impressive in their support for the information content hypothesis; the mean and median abnormal returns are tiny and insignificantly[159] different from zero on the announcement date. Although the sign of the mean and median abnormal returns was negative on day t_0 consistent with the hypothesis.

Contrary to the expectation of negative values, Table 5.5 shows positive mean abnormal returns, although insignificant, around all of the pre- and post-announcement dates except day t-3. There is some evidence of significantly negative returns being earned by shares in this DD sub-group on day t+4 and day t+5; the median abnormal return on day t+5

[159] As with Table 5.4, the one-sided nature of the hypothesis suggests that significance is most appropriately tested on a one-tailed basis.

Table 5.5 Share Price Performance around the Dividend-Decrease Announcements

	ABNORMAL RETURNS			EXCESS RETURNS		
DAY	Mean	Median	SD	Mean	Median	SD
t-10	0.00007 (0.514)	0.00003 (0.748)	0.02653	-0.00273 (0.107)	-0.00095 (0.163)	0.02962
t-9	0.00027 (0.544)	-0.00000 (0.655)	0.03282	0.00100 (0.706)	-0.00105 (0.263)	0.02488
t-8	0.00425 (0.993)	0.00000 (0.912)	0.02312	0.00207 (0.865)	-0.00010 (0.554)	0.02531
t-7	0.00087 (0.668)	0.00068 (0.907)	0.02725	-0.00661 (0.192)	0.00005 (0.716)	0.10256
t-6	0.00247 (0.910)	0.00086 (0.895)	0.02490	-0.00068 (0.373)	0.00000 (0.447)	0.02820
t-5	0.00094 (0.703)	-0.00004 (0.508)	0.02395	0.00197 (0.859)	0.00000 (0.701)	0.02474
t-4	0.00238 (0.907)	0.00003 (0.775)	0.02434	0.00377 (0.929)	0.00025 (0.963)	0.03465
t-3	-0.00099 (0.294)	-0.00070 (0.093)	0.02474	0.00661 (0.805)	-0.00040 (0.229)	0.10420
t-2	0.00349 (0.983)	0.00000 (0.884)	0.02217	0.00855 (0.957)	0.00110 (0.978)	0.06722
t-1	0.00318 (0.974)	0.00000 (0.867)	0.02203	0.00145 (0.714)	0.00000 (0.552)	0.03472
t_0	-0.00001 (0.499)	-0.00046 (0.287)	0.03632	0.00026 (0.533)	-0.00105 (0.233)	0.04286
t+1	0.00555 (0.760)	-0.00095 (0.109)	0.10637	0.00095 (0.605)	-0.00070 (0.129)	0.04843
t+2	0.00535 (0.758)	-0.00109 (0.064)	0.10359	0.00117 (0.673)	-0.00015 (0.387)	0.03552
t+3	0.00809 (0.863)	-0.00054 (0.338)	0.10005	-0.00163 (0.245)	-0.00115 (0.093)	0.03194
t+4	0.00689 (0.814)	0.00000 (0.374)	0.10454	-0.00444 (0.015)*	-0.00065 (0.034)*	0.02748
t+5	0.00302 (0.655)	-0.00120 (0.003)*	0.10257	-0.00441 (0.004)*	-0.00285 (0.001)*	0.02247
t+6	0.01092 (0.927)	0.00000 (0.802)	0.10156	-0.00137 (0.227)	-0.00030 (0.122)	0.02476
t+7	0.01155 (0.937)	0.00000 (0.843)	0.10201	-0.00406 (0.212)	0.00000 (0.118)	0.06879
t+8	0.01023 (0.917)	-0.00011 (0.775)	0.09989	-0.00098 (0.280)	0.00000 (0.230)	0.02281
t+9	0.01245 (0.947)	0.00038 (0.918)	0.10417	0.00046 (0.609)	0.00000 (0.594)	0.02255
t+10	0.00517 (0.740)	0.00005 (0.523)	0.10860	-0.00150 (0.174)	0.00000 (0.279)	0.02169

Note: An * indicates significant at the 5% level on the basis of one-tailed analysis. The figures in brackets are P-values. P-values for the mean averages are based on a one-sample t-test and for the median averages these are based on the Wilcoxon Signed Rank Test. SD is the standard deviation of respective mean values.

of -0.1% and the median (mean) excess returns on day t+4 and day t+5 (day t+5) are all significantly negative. If these unexpected share price moments are in response to the dividend news on day t_0, the results suggest that Pakistani investors are sluggish in reacting to the news of a dividend cut and take time to impound the information into share returns. Such a finding is different from the results of developed markets such as the US (Pettit, 1972) and the UK (Lonie et al., 1996) where the stock market typically responds very quickly to news of the dividend cut. Perhaps the lack of a sizable analyst community and communication difficulties in an ESM country like Pakistan means that investors take longer to respond. This is possible given the complex nature of the signal emitted by a dividend cut (e.g. Woolridge and Ghosh, 1985; Soter et al., 1996), in particular the need for investors to disentangle any favourable growth-related news represented by the payout figure. Finally, the standard deviations of mean values also show a wide range of volatility across different event days, particularly for the abnormal returns in the post-announcement period.

Table 5.6 illustrates the unexpected share price returns for the dividend-no-change announcements over the same 21-day period. According to the information content hypothesis, only normal returns are expected on the announcement day as no new information is thought to have been disclosed to the market. Based on this assumption, two-tailed tests are used to judge the significance of the mean and median values.

In line with the expectations of the signalling argument, the results show insignificant abnormal and excess returns being earned on the announcement date (McCluskey et al., 2006). Specifically, the findings indicate that, on day t_0, the mean abnormal and excess returns have positive values of 0.4% and 0.3% respectively, while the median abnormal (excess) returns are negative at -0.05% (-0.15%). Surprisingly, the mean abnormal return shows a positive significant value of 1.2% on day t-2; the only other significant figure is a negative return on day t-10. The median abnormal returns are also significant negative on day

Table 5.6 Share Performance around the Dividend-No-Change Announcements

	ABNORMAL RETURNS			EXCESS RETURNS		
DAY	Mean	Median	SD	Mean	Median	SD
t-10	-0.00728 (0.013)*	-0.00042 (0.029)*	0.03916	-0.00288 (0.237)	-0.00010 (0.446)	0.03281
t-9	0.00494 (0.282)	-0.00010 (0.661)	0.06171	0.00151 (0.573)	0.00000 (0.475)	0.03604
t-8	-0.00233 (0.475)	-0.00041 (0.262)	0.04383	0.00099 (0.555)	0.00000 (0.780)	0.02270
t-7	0.00236 (0.352)	0.00000 (0.711)	0.03410	-0.00126 (0.584)	-0.00105 (0.475)	0.03097
t-6	0.00245 (0.242)	0.00000 (0.123)	0.02812	-0.00109 (0.606)	0.00000 (0.444)	0.02854
t-5	0.00160 (0.554)	0.00000 (0.376)	0.03631	0.00033 (0.894)	-0.00115 (0.402)	0.03298
t-4	0.0123 (0.295)	0.0001 (0.219)	0.1575	-0.00151 (0.597)	-0.00010 (0.308)	0.03831
t-3	-0.00069 (0.765)	0.00003 (0.667)	0.03099	-0.00264 (0.205)	-0.00015 (0.341)	0.02804
t-2	0.01180 (0.030)*	0.00000 (0.150)	0.07298	0.00194 (0.309)	0.00000 (0.934)	0.02559
t-1	0.00094 (0.778)	-0.00027 (0.572)	0.04466	0.00271 (0.238)	-0.00010 (0.719)	0.03088
t_0	0.00398 (0.319)	-0.00046 (0.659)	0.05382	0.00295 (0.336)	-0.00150 (0.831)	0.04123
t+1	0.00383 (0.352)	-0.00046 (0.485)	0.05536	0.00136 (0.589)	0.00000 (0.780)	0.03405
t+2	0.00623 (0.169)	0.00028 (0.467)	0.06085	0.00155 (0.545)	-0.00010 (0.821)	0.03454
t+3	0.00010 (0.983)	-0.00122 (0.010)*	0.06157	-0.00029 (0.917)	-0.00355 (0.118)	0.03710
t+4	-0.00177 (0.652)	-0.00041 (0.090)	0.05272	-0.00591 (0.012)*	-0.00190 (0.011)*	0.03149
t+5	0.00037 (0.923)	-0.00069 (0.017)*	0.05131	-0.00222 (0.219)	-0.00215 (0.062)	0.02424
t+6	0.00606 (0.144)	-0.00001 (0.882)	0.05574	0.00127 (0.486)	-0.00010 (0.609)	0.02443
t+7	-0.00187 (0.765)	-0.00040 (0.322)	0.08411	0.00142 (0.409)	0.00000 (0.974)	0.02323
t+8	0.00269 (0.438)	-0.00006 (0.795)	0.04667	-0.00018 (0.915)	-0.00030 (0.805)	0.02211
t+9	-0.00193 (0.614)	-0.00045 (0.066)	0.05152	-0.00213 (0.261)	0.00000 (0.106)	0.02550
t+10	0.00240 (0.500)	-0.00068 (0.116)	0.04788	-0.00221 (0.193)	-0.00030 (0.037)*	0.02283

Note: An *Indicates significant at the 5% level on the basis of two-tailed analysis. The figures in brackets are P-values. P-values for the mean averages are based on a one-sample t-test and for the median averages these are based on the Wilcoxon Signed Rank Test. SD is the standard deviation of respective mean values.

t-10 as well as on two post-announcement days (t+3 and t+5). Given that the excess returns also indicate that relatively few values are statistically significant during the 21-day event period, it seems clear that the market reaction to DnC announcements is not characterised by any systematic share return behaviour, in line with prior expectations.

The results presented so far in the chapter indicate that the returns earned on the dividend announcement date in Pakistan are not significantly different from zero, either for all 639 announcements, or for any of the three sub-groups (DI, DD and DnC). There is however, some evidence of information leakage for all 639 announcements on day t-2; further analysis reveals that these significant positive mean unexpected returns on day t-2 appear to be due to the DI and DnC announcements rather than the DD news, as signalling theory might suggest. There is also evidence of some share price reactions about 3 to 5 days after the dividend announcement. However, this post announcement effect seems to be common to all dividend change sub-groups. Prior literature (e.g. Kane et al., 1984) suggests that reaching strong conclusion about the signalling effect of dividend is only possible when the interactive effect of earnings announcements is considered, so the analysis proceeds in this manner.

5.5.2 The Joint Announcements of Changes in Dividends and Earnings

This section of the chapter documents the joint effect of the announcements of dividends and earnings on share returns. As discussed earlier, dividends and earnings are announced together to the Pakistani market following the BoD's meeting and so attempting to study the impact of the dividend announcement without considering the confounding earnings signal may be especially problematic. The sample was therefore split into different groups on the basis of the nature of the dividend and earnings change. This form of analysis, which is consistent with that used in previous studies such as Lonie et al. (1996), split each of

the dividend change groups from the previous section: dividend-increase (DI), dividend-decrease (DD), and dividend-no-change (DnC). Similarly, three groups were identified based on the direction of changes in earnings namely: earnings-increase (EI), earnings-decrease (ED) and earnings-no-change (EnC). Therefore, nine groups were identified after combining the dividend and earnings change dimensions. Tables 5.7 and 5.8 show the mean and median abnormal returns respectively for each of the nine dividend-earning change groups while Tables 5.9 and 5.10 reports the excess returns.

Table 5.7 (Table 5.8) shows the mean (median) abnormal returns for each of the nine dividend-earnings groups. A number of results are evident from the tables. First, inspection of the findings confirms the impression from the earlier analysis of a lack of market response to the news as no group earns significant mean or median abnormal returns on the announcement date. Second, further evidence regarding the positive and significant abnormal return first reported in Table 5.3 on day t-2 is presented with the significant figures being restricted to the DDEI and DDEnC groups.

In Table 5.7, the mean abnormal returns for DDEI (DDEnC) are 0.5% (0.9%) with a p-value less than the critical value of 0.05. Moreover, the median abnormal value is also significant on day t-2 for the DnCEnC group. These significant values on day t-2 suggest that the market is responding more to the earnings rather than the dividend signal, given despite the dividend cuts in the DDEI and DDEnC groups. In terms of potential information leakage, this result is consistent with the reasoning in Woolridge and Ghosh (1985) whereby firms concerned about the market interpretation of ‘good news’ dividend cuts need to inform investors as early as possible about their rationale if they want to avoid any adverse share price effect. Third, Tables 5.7 and 5.8 reveal significant negative mean and median abnormal values on day t+2 immediately after the announcement date for the DIED and DDED groups; the analysis prior to the incorporation of earnings into the signal had not revealed any

Table 5.7 The Mean Abnormal Returns for All Dividend-Earnings Groups

Day	DIEI	DIED	DIEnC	DDEI	DDED	DDEnC	DnCEI	DnCED	DnCEnC
N	**191**	**56**	**26**	**86**	**76**	**22**	**77**	**55**	**50**
t-10	0.00000 (0.997)	-0.00175 (0.595)	-0.00368 (0.377)	0.00148 (0.620)	-0.00234 (0.451)	0.00287 (0.520)	-0.00600 (0.100)	-0.00931 (0.049)*	-0.00702 (0.354)
t-9	0.00142 (0.320)	-0.00053 (0.872)	0.0256 (0.387)	0.00099 (0.753)	0.00035 (0.938)	-0.00285 (0.554)	0.00340 (0.262)	-0.00267 (0.382)	0.0157 (0.321)
t-8	0.00194 (0.203)	-0.00184 (0.546)	-0.0133 (0.356)	0.00592 (0.023)*	0.00256 (0.342)	0.00357 (0.417)	0.00029 (0.905)	0.00290 (0.454)	-0.0121 (0.249)
t-7	-0.00182 (0.325)	0.00248 (0.359)	-0.0722 (0.177)	-0.00081 (0.770)	0.00205 (0.569)	0.00342 (0.377)	0.00289 (0.267)	-0.00107 (0.672)	0.00531 (0.503)
t-6	0.00072 (0.602)	-0.00385 (0.209)	-0.00449 (0.462)	0.00223 (0.358)	0.00377 (0.221)	-0.00113 (0.855)	0.00426 (0.120)	-0.00171 (0.718)	0.00424 (0.251)
t-5	0.00310 (0.111)	0.00138 (0.623)	0.00517 (0.426)	0.00029 (0.902)	-0.00012 (0.970)	0.00718 (0.113)	0.00462 (0.098)	0.00429 (0.170)	-0.00604 (0.461)
t-4	0.00416 (0.054)	-0.00355 (0.155)	-0.0148 (0.229)	0.00080 (0.748)	0.00189 (0.494)	0.01022 (0.119)	-0.00242 (0.543)	0.00719 (0.056)	0.0405 (0.339)
t-3	-0.00001 (0.995)	0.00033 (0.912)	0.0754 (0.229)	0.00260 (0.257)	-0.00505 (0.122)	-0.00099 (0.849)	-0.00118 (0.714)	0.00069 (0.869)	-0.00145 (0.775)
t-2	0.00303 (0.083)	-0.00400 (0.192)	-0.00392 (0.514)	0.00529 (0.016)*	-0.00041 (0.886)	0.00995 (0.026)*	0.00155 (0.565)	0.00515 (0.324)	0.0349 (0.060)
t-1	0.00209 (0.255)	0.00250 (0.432)	0.00410 (0.610)	0.00476 (0.042)	0.00080 (0.770)	0.00524 (0.194)	0.00145 (0.665)	0.00212 (0.803)	-0.00115 (0.845)
t_0	0.00311 (0.222)	0.00113 (0.832)	0.0107 (0.506)	0.00057 (0.860)	-0.00501 (0.278)	0.01499 (0.109)	-0.00495 (0.247)	-0.00046 (0.947)	0.0226 (0.031)
t+1	0.00476 (0.038)*	-0.00311 (0.461)	0.00589 (0.328)	0.0143 (0.385)	-0.00498 (0.145)	0.00751 (0.249)	0.00015 (0.968)	0.0088 (0.391)	0.00408 (0.617)
t+2	0.00195 (0.416)	-0.00681 (0.020)*	-0.0130 (0.325)	0.0154 (0.338)	-0.00709 (0.031)*	0.00895 (0.113)	-0.00247 (0.523)	0.00630 (0.252)	0.0195 (0.169)
t+3	0.00413 (0.068)	-0.00115 (0.746)	0.00008 (0.987)	0.0194 (0.211)	-0.00616 (0.068)	0.01305 (0.017)*	-0.00408 (0.090)	-0.00140 (0.846)	0.0082 (0.568)
t+4	-0.00052 (0.707)	-0.00454 (0.164)	-0.00073 (0.878)	0.0181 (0.262)	-0.00691 (0.065)	0.01064 (0.070)	-0.00650 (0.009)*	0.00042 (0.878)	0.0031 (0.818)
t+5	0.00065 (0.705)	-0.00163 (0.620)	0.00783 (0.143)	0.0137 (0.390)	-0.00622 (0.019)*	-0.00677 (0.433)	-0.00403 (0.131)	-0.00009 (0.974)	0.0076 (0.556)
t+6	0.00095 (0.508)	0.00569 (0.115)	0.00012 (0.983)	0.0190 (0.233)	0.00208 (0.450)	0.01003 (0.049)*	0.00214 (0.445)	-0.00254 (0.430)	0.0215 (0.126)
t+7	0.00051 (0.689)	0.00337 (0.269)	0.00198 (0.721)	0.0221 (0.167)	0.00151 (0.508)	0.00486 (0.330)	-0.00216 (0.381)	0.00400 (0.277)	-0.0079 (0.724)
t+8	-0.00016 (0.915)	-0.00914 (0.034)*	-0.00013 (0.981)	0.0185 (0.238)	0.00269 (0.315)	0.00400 (0.385)	-0.00265 (0.267)	0.00307 (0.370)	0.0105 (0.365)
t+9	0.00075 (0.668)	-0.00039 (0.893)	0.00865 (0.128)	0.0182 (0.257)	0.00507 (0.133)	0.0157 (0.199)	-0.00696 (0.022)*	0.00283 (0.243)	0.0006 (0.964)
t+10	-0.00012 (0.945)	-0.00018 (0.956)	-0.01218 (0.064)	0.0152 (0.338)	0.00015 (0.964)	-0.0169 (0.475)	-0.00197 (0.408)	-0.00010 (0.976)	0.0119 (0.320)

Note: An * indicates significance at the 5% level on the basis of two-tailed analysis. The figures in parenthesis are p-values. The p-values for the means are based on a one-sample t-test and for the medians are based on the Wilcoxon Signed Rank test

Table 5.8 The Median Abnormal Returns for All Dividend-Earnings Groups

Day	DIEI	DIED	DIEnC	DDEI	DDED	DDEnC	DnCEI	DnCED	DnCEnC
N	**191**	**56**	**26**	**86**	**76**	**22**	**77**	**55**	**50**
t-10	-0.00067 (0.326)	0.00016 (0.931)	-0.00171 (0.264)	0.00000 (0.539)	0.00013 (0.826)	0.00065 (0.287)	-0.00031 (0.164)	-0.00077 (0.117)	-0.00041 (0.374)
t-9	-0.00055 (0.681)	-0.00076 (0.475)	-0.0006 (0.666)	0.00000 (0.408)	-0.00009 (0.731)	-0.00079 (0.255)	0.00000 (0.718)	-0.00041 (0.181)	0.0003 (0.977)
t-8	-0.00028 (0.877)	0.00003 (0.552)	-0.0018 (0.629)	0.00000 (0.153)	-0.00063 (0.700)	0.00007 (0.668)	-0.00029 (0.774)	-0.00011 (0.730)	-0.0010 (0.156)
t-7	-0.00134 (0.196)	0.00000 (0.389)	-0.0057 (0.011)*	0.00000 (0.915)	0.00254 (0.084)	-0.00056 (1.000)	0.00005 (0.452)	-0.00035 (0.326)	0.00112 (0.457)
t-6	-0.00059 (0.814)	-0.00027 (0.297)	0.00072 (0.576)	0.00066 (0.228)	0.00125 (0.571)	0.00000 (0.955)	-0.00006 (0.418)	-0.00004 (0.797)	0.00208 (0.125)
t-5	-0.00010 (0.606)	0.00033 (0.496)	0.00164 (0.493)	-0.00000 (0.919)	-0.00077 (0.506)	0.00000 (0.305)	0.00058 (0.158)	0.00000 (0.386)	-0.00150 (0.271)
t-4	0.00019 (0.127)	-0.00008 (0.385)	-0.0031 (0.213)	0.00000 (0.778)	0.00079 (0.588)	-0.00004 (0.641)	0.00031 (0.577)	0.00000 (0.420)	0.0018 (0.457)
t-3	-0.00040 (0.529)	0.00010 (1.000)	-0.0058 (0.431)	-0.00042 (0.926)	-0.00197 (0.096)	-0.00004 (0.751)	0.00000 (0.749)	0.00000 (0.652)	0.00161 (0.518)
t-2	0.00044 (0.209)	0.00008 (0.449)	-0.00288 (0.446)	0.00080 (0.038)*	-0.00188 (0.184)	0.00185 (0.026)*	-0.00024 (0.989)	-0.00028 (0.671)	0.0033 (0.004)*
t-1	0.00010 (0.361)	0.00048 (0.541)	-0.00242 (0.859)	0.00023 (0.119)	0.00018 (0.928)	-0.00045 (0.723)	0.00000 (0.644)	-0.00030 (0.484)	-0.00062 (0.320)
t_0	-0.00004 (0.493)	-0.00340 (0.750)	-0.0021 (0.800)	-0.00095 (0.482)	-0.00035 (0.361)	0.00009 (0.271)	-0.00210 (0.074)	-0.00038 (0.559)	0.0035 (0.088)
t+1	-0.00014 (0.179)	-0.00057 (0.389)	0.00035 (0.446)	-0.0009 (0.494)	-0.00278 (0.121)	0.00000 (0.444)	-0.00066 (0.552)	-0.0005 (0.436)	-0.00012 (0.885)
t+2	-0.00029 (0.775)	-0.00143 (0.022)*	-0.0052 (0.461)	-0.0016 (0.348)	-0.00252 (0.042)*	0.00012 (0.211)	0.00002 (0.994)	-0.00005 (1.000)	0.0024 (0.247)
t+3	-0.00022 (0.551)	-0.00004 (0.686)	0.00011 (0.839)	-0.0000 (0.657)	-0.00228 (0.038)*	0.00183 (0.083)	-0.00053 (0.122)	-0.00071 (0.317)	-0.0071 (0.023)*
t+4	-0.00095 (0.237)	-0.00051 (0.361)	-0.00130 (0.416)	0.0001 (0.560)	-0.00252 (0.056)	0.00000 (0.287)	-0.00114 (0.019)*	0.00000 (0.777)	-0.0005 (0.576)
t+5	-0.00023 (0.916)	-0.00076 (0.252)	0.00423 (0.141)	-0.0022 (0.049)*	-0.00105 (0.051)	-0.00000 (0.614)	-0.00066 (0.103)	-0.00013 (0.565)	-0.0021 (0.065)
t+6	-0.00019 (0.915)	0.00090 (0.106)	-0.00202 (1.000)	-0.0007 (0.871)	0.00091 (0.585)	0.00027 (0.104)	0.00002 (0.897)	-0.00070 (0.184)	0.0006 (0.475)
t+7	-0.00089 (0.390)	0.00000 (0.599)	0.00295 (0.648)	0.0000 (0.235)	-0.00066 (0.948)	0.00000 (0.588)	-0.00048 (0.255)	-0.00030 (0.866)	-0.0003 (0.629)
t+8	-0.00142 (0.328)	-0.00254 (0.013)*	-0.00293 (0.431)	-0.0007 (0.743)	0.00060 (0.221)	-0.00045 (0.837)	0.00000 (0.722)	0.00024 (0.390)	-0.0014 (0.255)
t+9	-0.00125 (0.209)	-0.00012 (0.877)	0.01231 (0.110)	0.0001 (0.554)	0.00096 (0.182)	-0.0003 (0.955)	-0.00088 (0.033)*	0.00000 (0.571)	-0.0010 (0.167)
t+10	-0.00039 (0.635)	0.00048 (0.857)	-0.00513 (0.031)*	-0.0008 (0.509)	0.00075 (0.403)	-0.0000 (0.926)	-0.00184 (0.134)	-0.00066 (0.199)	0.0002 (0.854)

Note: An * indicates significance at the 5% level on the basis of two-tailed anslysis. The figures in parenthesis are p-values. The p-values for the means are based on a one-sample t-test and for the medians are based on the Wilcoxon Signed Rank test.

significant return as this point in time. The mean abnormal returns are -0.6% and -0.7% for the DIED and DDED groups, both have p-values suggesting significance at the 95.0% confidence interval. This finding also strengthens the dominance of earnings argument in that the sign of the returns is consistent with the earnings change, but not with the dividend change. Moreover, the mean abnormal return on day t+1 is only significant for the DIEI group; suggesting that the evidence in Table 5.4 of a significantly positive reaction for DI firms was in fact driven by those simultaneously revising this earning figure. More generally, Tables 5.7 and 5.8 document significant values before and after, but not on, the announcement date for most groups, implying that investors can both anticipate and react to dividend and earnings in a profitable fashion; the KSE appears, therefore, not to be weak-form efficient with regard to dividend news despite the lack of price movement on the formal announcement day.

Tables 5.9 and 5.10 show the mean and median excess returns for the nine groups respectively. The results documented in these tables are also consistent with the findings of the previous analysis is that no significant excess returns occur on the announcement date. However, in this case, Table 5.9 shows that the significant positive mean excess return on day t-2 (as first reported in Table 5.3) was reflective of the DIEI group. Table 5.4-5.6 revealed that it was only the DI group that yielded significant positive excess returns on day t-2, but as with the abnormal returns, division by earnings change suggests that it is in fact the latter that dominates in terms of signalling. Other significant positive excess returns are found immediately before the announcement day (day t-1) for the DIEnC (both mean and median) and DnCEnc (mean only) groups; the mean excess returns are 1.1% for the DIEnC group and 0.7% (p-value, 0.04) for the DnCEnC group, suggesting again that in so far as information concerning dividends is price-sensitive on the KSE, leakage occurs. As with the abnormal

Table 5.9 The Mean Excess Returns for All Dividend-Earnings Groups

Day	DIEI	DIED	DIEnC	DDEI	DDED	DDEnC	DnCEI	DnCED	DnCEnC
N	**191**	**56**	**26**	**86**	**76**	**22**	**77**	**55**	**50**
t-10	-0.00096	0.00343	-0.00710	0.00067	-0.00482	-0.00876	0.00024	-0.00994	0.00007
	(0.608)	(0.224)	(0.450)	(0.827)	(0.197)	(0.102)	(0.929)	(0.132)	(0.982)
t-9	0.00164	0.0127	0.00521	0.00029	0.00317	-0.00375	0.00053	0.01063	-0.00702
	(0.697)	(0.344)	(0.420)	(0.905)	(0.268)	(0.593)	(0.833)	(0.084)	(0.231)
t-8	0.00165	-0.00279	0.00095	-0.00014	0.00604	-0.00303	0.00145	0.00308	-0.00201
	(0.541)	(0.687)	(0.794)	(0.952)	(0.068)	(0.562)	(0.552)	(0.358)	(0.533)
t-7	-0.00195	-0.01624	0.00392	0.00038	-0.0159	-0.00189	-0.00794	0.00029	0.00732
	(0.418)	(0.037)*	(0.345)	(0.854)	(0.383)	(0.711)	(0.027)*	(0.934)	(0.135)
t-6	0.00299	-0.00125	0.00933	-0.00451	0.00114	0.00801	0.00038	0.00503	-0.01009
	(0.070)	(0.696)	(0.040)*	(0.197)	(0.677)	(0.127)	(0.878)	(0.294)	(0.014)*
t-5	0.00050	0.00861	0.00517	0.00415	-0.00159	0.00576	0.00461	-0.00174	-0.00400
	(0.817)	(0.094)	(0.295)	(0.157)	(0.542)	(0.235)	(0.314)	(0.670)	(0.209)
t-4	0.0136	-0.00474	-0.00765	0.00197	0.00538	0.00527	-0.00136	0.00168	-0.00523
	(0.210)	(0.442)	(0.379)	(0.614)	(0.195)	(0.317)	(0.808)	(0.709)	(0.096)
t-3	-0.00003	0.0179	-0.00337	-0.00418	0.0218	-0.00377	0.00228	-0.00737	-0.00503
	(0.985)	(0.234)	(0.635)	(0.125)	(0.234)	(0.515)	(0.408)	(0.140)	(0.107)
t-2	0.00548	0.00226	0.00470	0.0133	0.00460	0.00351	0.00471	-0.00128	0.00119
	(0.030)*	(0.602)	(0.454)	(0.197)	(0.102)	(0.493)	(0.188)	(0.673)	(0.651)
t-1	-0.00060	0.00181	0.01119	0.00040	0.00149	0.00541	0.00093	0.00133	0.00696
	(0.783)	(0.724)	(0.026)*	(0.870)	(0.781)	(0.340)	(0.765)	(0.807)	(0.043)*
t_0	-0.00373	0.0086	0.01357	-0.00420	0.00589	-0.00176	0.00026	0.00497	0.00486
	(0.161)	(0.417)	(0.086)	(0.334)	(0.292)	(0.787)	(0.953)	(0.395)	(0.440)
t+1	-0.00219	0.00704	0.00327	0.00461	-0.00324	0.00115	0.00286	0.00742	-0.00760
	(0.359)	(0.283)	(0.638)	(0.413)	(0.573)	(0.815)	(0.459)	(0.137)	(0.084)
t+2	-0.00273	-0.00581	-0.00015	-0.00145	0.00292	0.00542	0.00292	0.00443	-0.00371
	(0.189)	(0.430)	(0.982)	(0.730)	(0.414)	(0.507)	(0.387)	(0.488)	(0.283)
t+3	-0.00058	-0.00475	0.00438	-0.00472	0.00032	0.00374	0.00278	-0.00691	0.00227
	(0.787)	(0.413)	(0.597)	(0.163)	(0.935)	(0.502)	(0.599)	(0.053)	(0.606)
t+4	-0.00266	0.00529	-0.00485	-0.00351	-0.00681	0.00011	-0.00678	-0.00491	-0.00565
	(0.064)	(0.082)	(0.225)	(0.256)	(0.034)*	(0.982)	(0.024)*	(0.409)	(0.085)
t+5	-0.00230	0.00157	0.00569	-0.00634	-0.00272	-0.00268	-0.00242	0.00375	-0.00847
	(0.270)	(0.770)	(0.205)	(0.009)*	(0.301)	(0.602)	(0.269)	(0.270)	(0.044)*
t+6	0.00070	0.00602	0.00528	-0.00343	0.00084	-0.00093	0.00029	0.00554	-0.00194
	(0.794)	(0.046)*	(0.348)	(0.228)	(0.771)	(0.802)	(0.908)	(0.177)	(0.505)
t+7	0.00003	0.00300	0.00007	-0.0101	0.00231	-0.00245	0.00458	-0.00165	-0.00005
	(0.989)	(0.410)	(0.987)	(0.331)	(0.494)	(0.654)	(0.098)	(0.605)	(0.986)
t+8	0.00084	-0.00555	0.00357	-0.00162	-0.00162	0.00374	-0.00381	0.00217	0.00284
	(0.610)	(0.226)	(0.426)	(0.530)	(0.518)	(0.450)	(0.133)	(0.521)	(0.276)
t+9	0.00069	-0.00005	-0.00419	0.00060	0.00155	-0.00386	-0.00212	-0.00089	-0.00351
	(0.760)	(0.991)	(0.659)	(0.797)	(0.486)	(0.602)	(0.372)	(0.813)	(0.406)
t+10	-0.00073	0.00179	0.00530	-0.00198	-0.00485	0.01192	-0.00308	-0.00027	-0.00300
	(0.806)	(0.681)	(0.240)	(0.295)	(0.086)	(0.025)*	(0.169)	(0.929)	(0.452)

Note: An * indicates significance at the 5% level on the basis of two-tailed analysis. The figures in parenthesis are p-values. The p-values for the means are based on a one-sample t-test and for the medians are based on the Wilcoxon Signed Rank test

Table 5.10 The Median Excess Returns for All Dividend-Earnings Groups

Day	DIEI	DIED	DIEnC	DDEI	DDED	DDEnC	DnCEI	DnCED	DnCEnC
N	**191**	**56**	**26**	**86**	**76**	**22**	**77**	**55**	**50**
t-10	-0.00290	0.00155	0.00000	-0.00205	0.00020	-0.00200	0.00100	0.00290	0.00000
	(0.063)	(0.236)	(0.891)	(0.788)	(0.706)	(0.170)	(0.674)	(0.063)	(0.983)
t-9	0.00100	-0.0008	-0.00215	-0.00215	-0.00075	0.00135	0.00000	0.00100	-0.00055
	(0.092)	(0.423)	(0.898)	(0.788)	(0.914)	(0.972)	(0.979)	(0.092)	(0.633)
t-8	0.00000	0.00040	0.00045	-0.00165	0.00005	-0.00190	0.00000	0.00000	-0.00275
	(0.750)	(0.218)	(0.819)	(0.549)	(0.219)	(0.404)	(0.396)	(0.750)	(0.434)
t-7	0.00000	-0.00360	0.00015	-0.00060	0.0015	-0.00040	-0.00380	0.00000	-0.00135
	(0.975)	(0.062)	(0.668)	(0.931)	(0.268)	(0.754)	(0.066)	(0.975)	(0.244)
t-6	0.00080	-0.00215	0.00220	-0.00235	0.00010	0.00015	0.00100	0.00080	-0.00855
	(0.488)	(0.615)	(0.091)	(0.162)	(0.477)	(0.266)	(0.792)	(0.488)	(0.014)*
t-5	-0.00100	0.00125	0.00050	0.00000	0.00000	0.00020	0.00000	-0.00100	-0.00355
	(0.455)	(0.162)	(0.456)	(0.252)	(0.325)	(0.360)	(0.623)	(0.455)	(0.138)
t-4	0.00000	-0.00065	0.00000	0.00010	0.00205	0.00005	-0.00030	0.00000	-0.00025
	(0.833)	(0.750)	(0.511)	(0.410)	(0.159)	(0.398)	(0.684)	(0.833)	(0.189)
t-3	0.00000	0.0001	0.00345	-0.00315	0.0010	-0.00260	0.00070	0.00000	-0.00445
	(0.394)	(0.323)	(0.536)	(0.045)*	(0.198)	(0.615)	(0.521)	(0.394)	(0.067)
t-2	-0.00240	0.00085	-0.00225	0.0007	0.00110	0.00515	0.00000	-0.00240	0.00000
	(0.214)	(0.504)	(0.780)	(0.275)	(0.138)	(0.424)	(0.433)	(0.214)	(0.956)
t-1	0.00000	0.00010	0.00445	-0.00040	0.00000	0.00260	-0.00130	0.00000	0.00000
	(0.585)	(0.585)	(0.029)*	(0.801)	(0.981)	(0.330)	(0.357)	(0.585)	(0.275)
t_0	-0.00030	-0.0061	0.00845	-0.00260	-0.00055	-0.00010	-0.00560	-0.00030	-0.00230
	(0.675)	(0.560)	(0.174)	(0.332)	(0.989)	(0.833)	(0.852)	(0.675)	(0.904)
t+1	0.00360	-0.00145	0.00000	0.00015	-0.00170	-0.00350	-0.00020	0.00360	-0.00980
	(0.069)	(0.629)	(0.370)	(0.884)	(0.074)	(0.972)	(0.768)	(0.069)	(0.071)
t+2	-0.00390	-0.00015	-0.00035	-0.00275	0.00000	0.00000	0.00000	-0.00390	-0.00215
	(0.942)	(0.774)	(0.493)	(0.279)	(0.601)	(0.681)	(0.619)	(0.942)	(0.255)
t+3	-0.00550	-0.00210	-0.00445	-0.00365	-0.00015	0.00000	0.00000	-0.00550	-0.00540
	(0.009)*	(0.054)	(0.629)	(0.268)	(0.233)	(0.445)	(0.781)	(0.009)*	(0.317)
t+4	0.00000	0.00000	-0.00310	0.00000	-0.00275	-0.00125	-0.00200	0.00000	-0.00440
	(0.802)	(0.287)	(0.146)	(0.752)	(0.024)*	(0.614)	(0.018)*	(0.802)	(0.074)
t+5	-0.00050	-0.00475	0.00240	-0.00400	-0.00260	-0.00005	-0.00030	-0.00050	-0.00425
	(0.754)	(0.344)	(0.317)	(0.008)*	(0.099)	(0.502)	(0.222)	(0.754)	(0.030)*
t+6	0.00000	0.00515	-0.00060	-0.00045	0.00000	-0.00015	-0.00020	0.00000	-0.00080
	(0.509)	(0.009)*	(0.943)	(0.211)	(0.816)	(0.737)	(0.457)	(0.509)	(0.388)
t+7	0.00000	0.00000	0.00015	-0.0008	0.00000	0.00015	0.00000	0.00000	-0.00090
	(0.870)	(0.652)	(0.920)	(0.166)	(0.724)	(0.985)	(0.563)	(0.870)	(0.593)
t+8	-0.00030	-0.00160	-0.00005	0.00000	-0.00025	0.00035	-0.00170	-0.00030	0.00090
	(0.496)	(0.136)	(0.648)	(0.516)	(0.330)	(0.465)	(0.097)	(0.496)	(0.344)
t+9	0.00000	-0.00095	0.00015	0.00000	0.00000	-0.00050	0.00000	0.00000	-0.00225
	(0.772)	(0.096)	(0.966)	(0.973)	(0.617)	(0.837)	(0.187)	(0.772)	(0.137)
t+10	-0.00160	-0.00090	0.00035	0.00000	-0.00015	0.00410	-0.00030	-0.00160	0.00000
	(0.181)	(0.729)	(0.294)	(0.649)	(0.082)	(0.034)*	(0.066)	(0.181)	(0.646)

Note: An * indicates significance at the 5% level on the basis of two-tailed analysis. The figures in parenthesis are p-values. The p-values for the means are based on a one-sample t-test and for the medians are based on the Wilcoxon Signed Rank test

returns, the excess returns display some significance after day t_0 as well; implying that investors on the KSE take time to respond to dividend news.

In general terms, the results in Tables 5.7-5.10 suggest that earnings is the dominant signal, but as in other related studies further analysis of this issue was undertaken to allow substantive conclusion to be arrived at. The chapter now reports the results of this work.

5.5.4 Diagrammatical Analysis

Prior studies (e.g. Lonie et al., 1996; McCluskey et al., 2006) have used graphical explanations of cumulative returns in an attempt to demonstrate patterns in sub-group results more clearly. With nine groups in the current study, the need for this form of result summation is particularly pressing. Figures 5.1 and 5.2 therefore show the cumulative abnormal and excess returns for each of the nine dividend-earnings groups around the whole event period. The calculation of cumulative abnormal and excess returns was based on equations 4.7 and 4.8 in Section 4.4.1 in Chapter 4. Figure 5.1 displays the CARs around the event period. The most obvious pattern in CARs is observed for the DDEI group in the post-announcement period, where the positive trend in price movements relative to the other eight groups is clearly evident. This finding strengthens the argument that investors gave more importance to the earnings figure than to its dividend counterpart. Also of note is the increase in value before and after the announcement date for the DIEI group especially between, days t-5 and t+5. And the 'zigzag' movement for the DnCEnC group, especially from day t-5 to day t+10 is pronounced. Regarding the latter, some days (e.g., day t-4) exhibit high price increases but other days (such as day t+7) see negative movements. The rise may be due to the dissipation of uncertainty about dividend and earning changes, as investors are made aware that the previous year's dividend and earnings levels will be maintained (Lonie et al., 1996). The DIEnC group also exhibits return fluctuations in post-announcement days, but

Figure 5.1 Cumulative Abnormal Returns for the Nine Groups

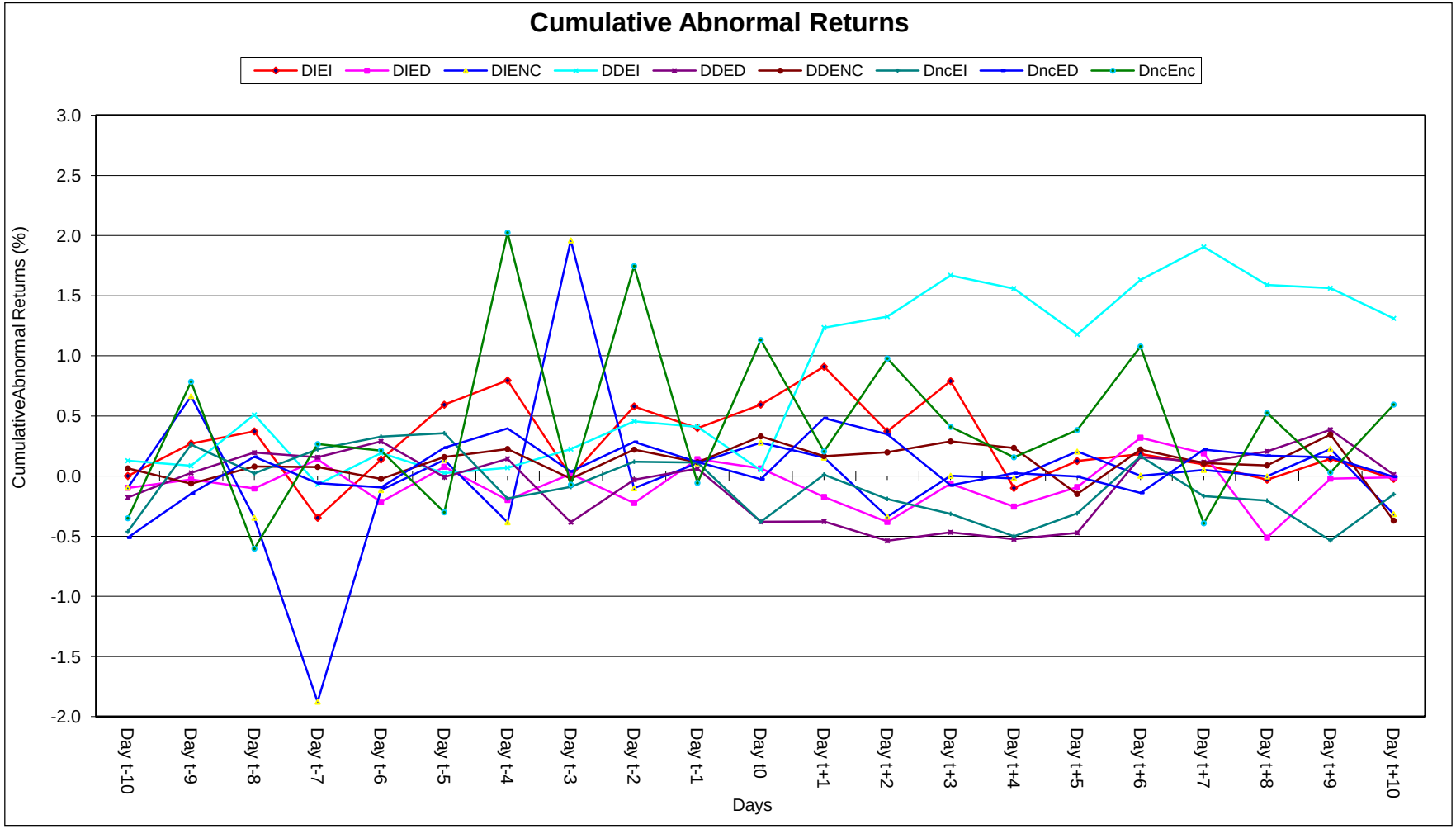


Figure 5.2 Cumulative Excess Returns for the Nine Groups

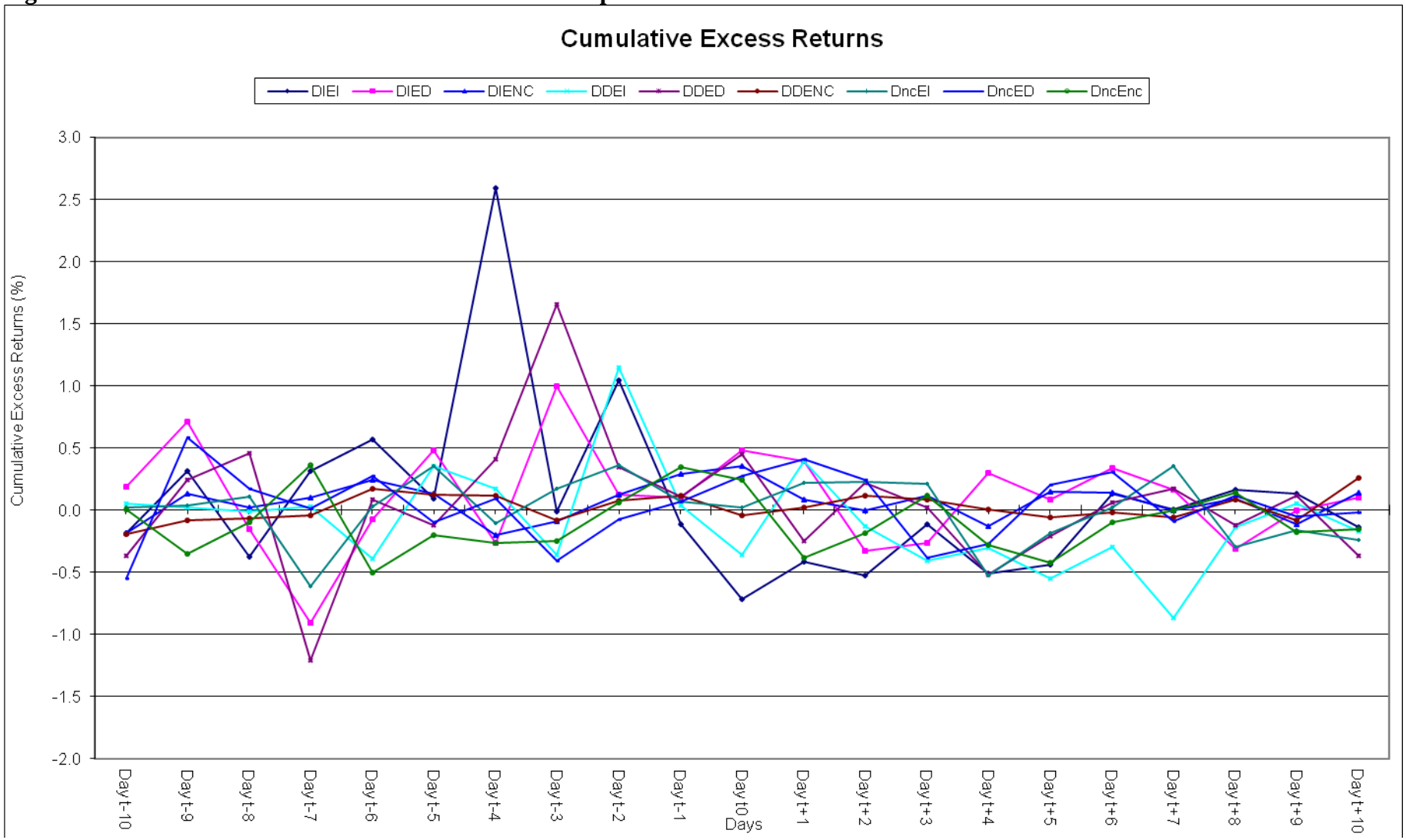


Figure 5.1 reveals broadly flat patterns for the remaining groups across the 21-day period. Figure 5.1 does, however, strengthen the argument of leakage of information before the announcements as many groups (such as DIEI, DIEnC, DnCEnC and DDEI) show an upward movement in abnormal returns before the announcement, especially from day t-5.

Figure 5.2 shows the cumulative excess returns around the dividend announcements. Inspection of this Figure presents a somewhat different picture from the CARs. While the graph depicts similar increases in excess returns before the announcement date (especially from day t-5 and t-1), the CExRs stabilise around day zero (even becoming negative for groups such as DIEI, DIED and DDEI) following the announcement date. The most obvious difference relates to the DDEI group, which displays negative CExRs beyond the announcement date despite having the highest values for CARs in the same peirod. More generally, Figure 5.2 again supports the notion of leakage of information before dividend announcements in Pakistan as most fluctuations in the CExRs occur from day t-5 to day t-1.

5.5.5 Interaction Effect

This section focuses on a more formal test of the interaction effect between dividend and earnings announcements in Pakistan using a regression model with dummy variables for the dividend-earnings groups. The method was first proposed by Kane et al. (1984) in the US data and subsequently employed by Easton (1991) for an Australian sample and Lonie et al. (1996) for the UK observations. This method involves regressing the CARs for different periods against the percentage change in DPS and EPS and dummy variables for each dividend-earnings group. Regression models were therefore constructed based on equations 4.9 and 4.10 in Chapter 4.

In light of the evidence of previous studies (Aharony and Swary, 1980, Kane et al., 1984, Easton, 1991; Lonie et al., 1996), this research assumes positive coefficients for γ_1 and γ_2 for Equation [4.9]. Further, the study assumes that any interaction effect will be picked by the dummy variables which might lower down the significance level of expected positive coefficients for δ_1 and δ_2 for Equation [4.10]. Three types of F-tests were used in determination of significance levels. First, the F-statistic (derived from Equation [4.9]) is used to determine the significance of γ_1 and γ_2 in Equation [4.9]. Second, the 'first-order' F-statistic is used for joint significance of δ_1 and δ_2 in Equation [4.10]. Third, the 'interaction' F-statistic is for testing the interaction among dummy variables in Equation [4.10].

For calculation of the interaction F-test, the null hypothesis is of no-interaction between dividend and earnings and the coefficients on the dummy variables are simultaneously zero. The formula of calculating the interaction F-statistic was first adopted by Kane et al. (1984) for the US data and subsequently used by Easton (1991) and Lonie et al. (1996). The interaction F-statistic "assesses the increase in power of the unrestricted model over the restricted model in explaining the abnormal returns" (Abeyratna, 1994, pp. 54-55). This F-test is calculated as:

$$\text{Interaction F-statistic} = \frac{[SSE(\text{restricted}) - SSE(\text{unrestricted})]/R}{[SSE(\text{unrestricted})]/N - K)} \qquad [5.9]$$

where $SSE_{(restricted)}$ denotes the error sum of squares in the restricted model (Equation 4.9), $SSE_{(unrestricted)}$ is the error sum of squares in the unrestricted model (Equation 4.10), R shows the number of restrictions, N is the number of observations and K is the number of regressors (parameters) in the unrestricted model. In this study, R is 8, N is 531 and K is 10 for calculating the interaction F-test.

According to Easton (1991), for the calculation of the first-order F-statistic, "the restricted model is a model which includes only a constant and the interaction dummy

variables" (p. 264). Therefore, the unrestricted model is the same Equation [4.10] and the restricted model for calculation of the first-order F-statistic is as:

$$\text{AR or CAR} = b_0 + b_1 (+, +) + b_2 (+, -) + b_3 (+, 0) + b_4 (-, +) + b_5 (-, 0) + b_6 (0, +) + b_7 (0, -) + b_8 (0, 0) \quad [5.10]$$

So, the first-order F-statistic is calculated as:

$$\text{First-order F-statistic} = \frac{[SSE(\text{restricted}) - SSE(\text{unrestricted})]/R}{[SSE(\text{unrestricted})]/N - K)} \quad [5.11]$$

where $SSE_{(restricted)}$ is the error of sum squares in Equation 5.10, $SSE_{(unrestricted)}$ is the sum of error squares in Equation 4.10, R is number of restrictions, N is the number of observations and K is the number of regressors in the unrestricted model. In the study, R is 2, N is 521 and K is 10 for calculating the first-order F-test.

For the regression analysis, the percentage change was calculated for all 639 DPS and EPS observations. The percentage change in EPS was calculated as:

$$\Delta EPS = (EPS_{it} - EPS_{it-1})/ EPS_{it-1} \quad [5.12]$$

Here ΔEPS is the change in the earning per share. EPS_{it} is the current year's earrings and EPS_{it-1} indicates the earning per share of the previous year. The percentage change in DPS was calculated by using the following formula:

$$\Delta DPS = (DPS_{it} - DPS_{it-1})/ DPS_{it} \quad [5.13]$$

Here ΔDPS is the change in the dividend per share. DPS_{it} is the current year's dividend and DPS_{it-1} indicates the dividend per share of the previous year. During the calculation, some percentage differences took infinite values due to having zero values in denominators; such values were excluded from further analysis. There were 108 cases excluded, and so the

remaining 531 observations constituted the sample.[160] Table 5.11 reports the regression results using the ARs on day t_0 as the dependent variable.[161]

Table 5.11 Regression Analysis for Interaction using AR_{t0} as Dependent Variable

Explanatory Variables	Equation [4.9]	Equation [4.10]
Constant	0.00101 (0.551)	- 0.00590 (0.173)
% DPS	- 0.000103 (0.888)	- 0.000225 (0.767)
% EPS	- 0.000573 (0.555)	- 0.00092 (0.369)
DIEI		0.0108 (0.048)*
DIED		0.00529 (0.446)
DIEnC		- 0.0002 (0.983)
DDEI		0.00554 (0.359)
DDEnC		0.0263 (0.005)*
DnCEI		- 0.00023 (0.974)
DnCED		- 0.00090 (0.900)
DnCEnC		0.0320 (0.0001)*
N	531	531
F-Statistics	0.19 (0.826)	
R^2	0.1	4.50
R^2 (Adjusted)	0.0	2.70
F-Statistics "1st order"		0.47
F-Statistics "Interaction"		3.04*

Note: An * indicates significance at the 5% level. The figures in parenthesis are p-values. The degree of freedom for 'first-order' F-statistic is (2, 531) and the degree of freedom for 'interaction' F-statistic is (8, 531).

[160] The number of events in each group was: 169 in DIEI, 51 in DIED, 17 in DIEnC, 85 in DDEI, 76 in DDED, 21 in DDEnC, 47 in DnCEI, 43 in DnCEI and 22 in DnCEnC.

[161] Appendix 5.2, 5.3 and 5.4 show the results for Equations [4.9] and [4.10] while using three different dependent variables: $AR_{t-2,}$ $CAR_{t-2\ to\ t+2}$ and $CAR_{t-10\ to\ t+10}$ respectively. The F-statistics of the three tables do not show a significant association between explanatory variables and dependent variables in the respective table for Equation [4.9]. Similarly, the values of the 'first-order' and the 'interaction' F-statistic are insignificant at the 5.0% level for Equation [4.10].

Table 5.11 shows a number of interesting results emerged from using regression model for Equations [4.9] and [4.10] on the announcement date. For example, for Equation [4.9], the ΔDPS and ΔEPS are negatively (although insignificantly) related to the abnormal returns, contrary to the normal expectation of a positive association between these variables and returns. The lack of significance for the ΔEPS coefficient suggests that the evidence of earnings dominance in certain aspects of the analysis thus far is not robust to this broader form of investigation, and such a conclusion should be tempered. This finding also contradicts the previous evidence in Kane et al. (1984) for the US data, and subsequent results in Easton (1991) for Australia, Lonie et al. (1996) for the UK and McCluskey et al. (2006) for Ireland; all of which found at least one significant coefficient for the equivalent of Equation [4.9]. Moreover, the F-statistics for Equation [4.9] also shows a value of 0.19 having a p-value of 0.8 suggesting that the equation explains very little of the variability in abnormal returns.

Similarly, Equation [4.10] in Table 5.11 reveals a number of findings. First, like Equation [4.9], ΔDPS and ΔEPS are negatively (although insignificantly) associated with abnormal returns. This conflicts with the expectation from prior studies but is similar to the findings of the Equation [4.9] where insignificant coefficients were documented on the announcement date. Second, Table 5.11 shows a significant value of the interaction F-statistic which reveals that all the dummies jointly explain some of the variability in abnormal returns on the announcement date. The interaction F-statistic of 3.04 is significant at 1.0% level, thus rejecting the null hypothesis of no interaction effect for the dividend and earnings signals. This result is similar to those reported in previous studies such as Kane et al. (1984); Easton (1991) and Lonie et al. (1996).

Third, the significant value of the interaction F-statistic is driven by three significant dummies (DIEI, DDEnC and DnCEnC). The significant coefficient for the DIEI group is in

line with prior evidence (Kane et al., 1984; Easton, 1991; Lonie et al., 1996), but the significant positive relationship between AR_{t0} and the DnCEnC group is novel as EnC categories are not focused on in the earlier analyses. This result implies that investors react positively to the news that previous levels of dividend and earnings are maintained. The third significant positive relationship, between AR_{t0} and DDEnC, supports the previous suggestions that earnings are the dominant signal in Pakistan and suggests that where the dividend is cut, maintenance of the previous level of earnings gives a positive impression to the investors about the firm's position.

Fourth, the first-order F-statistic shows the joint significant of magnitude of dividend and earnings changes in Equation [4.10]. The first-order F-statistic depicts an insignificant value 0.47 which is below the critical value at 5.0% level. This result suggests, as in Easton (1991) and Lonie et al. (1996) that when the interaction effect is built into the analysis, the size of earnings and dividend changes have no explanatory power. Moreover, the result corroborates the findings of previous research where inclusion of the dummies in Equation [4.10] reduces the significance level of the δ_1 and δ_2. Fifth, as expected, the sign of the constant term is negative (although insignificant) which is used to represent the dummy variable where dividends decrease and earnings decrease. Finally, the coefficient of determinants (R^2) shows a small value of 4.5 which indicates that Equation [4.10] can explain only 4.5% of the variability in abnormal returns with the help of the equation.

5.6 Conclusion

In conclusion, the results show that returns earned on the announcement date were not significantly different from zero for the all 639 announcements and for the three sub-groups (DI, DD and DnC). Moreover, there is some evidence of information leakage for all 639 announcements on day t-2; further analysis reveals that these significant mean unexpected

returns on day t-2 appear to be due to the DI and DnC announcements. Moreover, the significant mean abnormal return on day t-2 appear to be due to DDEI and DDEnC groups while the significant mean excess returns is achieved by the DIEI firms; these firms imply that earnings are dominant as compared to dividend announcements. There is also evidence of some share price reactions about 3 to 5 days after the dividend announcement. However, this post announcement effect seems to be common to all dividend change sub-groups. Perhaps, the market is reacting more to the joint dividend-earnings signal. The analysis of average abnormal returns suggest confounding signals that earnings is the dominant compared to dividend news, but these investors also take positively the news of no-change in DPS and EPS. Of particular interest, however, is the evidence of an interaction effect on day t_0 confirmed via the interaction F-statistic analysis. This result suggests that even when the average impact of dividends on share prices is zero, there can be identifiable influences on return behaviour that might fail to be spotted on the basis of aggregate analysis.

Overall, however, it is clear that – notwithstanding the evidence of an interaction effect– the KSE's reaction to dividend announcements differs markedly from most of the earlier (largely developed country-based) findings, in terms of both its nature and timing, for example, the results are not consistent with those of Pettit (1972) for the US; Lonie et al. (1996) for the UK and McCluskey et al. (2006) for Ireland. However, the results are similar to the findings for emerging stock markets such as Mollah (2001); Uddin (2003) and Rishma et al. (2007) for Bangladesh. Closer analysis of the issues is clearly need, in order to desire a fuller picture of what drives firm and investor behaviour in Pakistan regarding dividends; the remainder of the thesis reports the result of this endeavour.

CHAPTER 6

INTERVIEWS WITH COMPANY OFFICIALS AND FINANCIAL ANALYSTS ABOUT THE DETERMINANTS OF DIVIDEND POLICY AND ITS SIGNALLING IMPACT

6.1 Introduction

This chapter reports the findings of interviews with 23 company officials about the determinants of dividend policy and its impact on share prices in the Pakistani market. Sixteen financial analysts were also interviewed, in their role as investors, about the signalling issue. The literature review contained in Chapter 3 revealed that most previous studies of the Pakistani market use statistical analysis to ascertain the determinants of dividend policy and the latter's relationship with share prices. The current study therefore adds to the extant body of knowledge via the ability of interview evidence to explore individual views about the issues in practice, including behavioural aspects.

The main purpose of conducting interviews was to obtain the perceptions of those individuals who are directly involved in the process but, the interviews also complement the findings of the event study discussed in Chapter 5. For example, the lack of significant returns on the announcement date for Pakistani firms needs some explanation as does, the evidence of information leakage. Therefore, the semi-structured interview method was used for this purpose.

The remainder of the chapter is structured as follows. Section 6.2 provides detailed information about the background and selection of the company officials.[162] Section 6.3 focuses on the findings regarding the determinants of dividend policy and target payout ratio. The issue of dividend signalling is discussed in Section 6.4, when the details of the analyst interviewees are provided, while, Section 6.5 concludes the chapter.

6.2 Background and Sample Selection for the Company Officials

6.2.1 Background

The interviews focused on two broad issues: (i) determinants of dividend policy; and (ii) whether dividend announcements acted as signals to the market. As regards contextual

[162] Details about the interview method are provided in Section 4.4.1 of Chapter 4.

matters for the responses about the determinants of dividend policy, the relevant statutory requirements about dividend disbursements in Pakistan (as described in the Company Ordinance, 1984) were discussed in Section 2.4.2 of Chapter 2. Chapter 2 also revealed that the SECP requires listed profitable firms to pay a dividend at least once every five years; if a firm fails to do so, it can be de-listed from the exchange concerned. In addition, the KSE issues a ranking of companies on the basis of "good" performance. The ranking incorporates many factors including the regularity and soundness of dividend payment.

6.2.2 Sample Selection for the Company Officials

This chapter reports the results of interviews with leading companies and financial analysts in Pakistan. Interviews were conducted with 23 officials considered to be knowledgeable about the dividend policy of their organisations. The sample was selected based on the availability of interviewees and the desire to include individuals from a diverse set of backgrounds. Each interview comprised 30 semi-structured questions:[163] eight of these related to general information about the interviewee and their organisation; eight dealt with views on the determinants of dividend policy; six enquired about influences on a firm's payout; while the remaining eight related to perceptions about the signalling characteristics of dividend announcements. The officials[164] interviewed included chief financial officers (CFOs), directors, financial managers, vice-presidents of finance, financial controllers, company secretaries, account officers, account controllers, general managers of accounts, investor relations officers and unit heads of corporate planning. Eleven out of the twenty-

[163] Appendix 6.1 depicts the authorising letter from the School of Business, University of Dundee; Appendix 6.2 shows the covering letter and Appendix 6.3 provides details about the questions which guided the interviews with company officials.

[164] All the interviewees were male. It is also worth-mentioning that some officials were associated with more than one listed company. For example, interviewee C5 from a textile firm was the CFO of three listed companies; however, this was only counted as one interview. If the number of listed companies represented by the interviewees was used to define the sample then the size would be 30. In one sugar firm, interviews were conducted with three directors, so these were counted as three interviews.

three officials were ICAP-qualified[165] chartered accountants, two were qualified cost and management accountants from ICMAP,[166] while the two others were ICSP chartered secretaries.[167] There was also a wide range of educational qualifications among the interviewees: two officials held Masters in Business Administration (MBA)[168] degrees; three officials had Bachelor in Commerce (B.Com) qualifications, one official had been awarded a postgraduate diploma in Cost and Management Accounting, and one had a Bachelors degree in International Relations and Economics from a US university.

Each interviewee was consulted beforehand about their availability for a meeting and sent a copy of the semi-structured interview documents. The meetings typically lasted for just under an hour and were taped in five cases where the interviewees gave permission. These recorded interviews were transcribed and important quotations noted down. Twenty-one of the interviews were conducted face-to-face with individuals, while the other two took place over the telephone.[169] For all interviews, whether recorded or not, complete notes of all answers were taken by the researcher and important quotations and responses documented.

The interviews took place between April and June 2010 in five major Pakistani cities: Karachi, Lahore, Islamabad, Peshawar and Rawalpindi. These cities were selected as the head offices of most large Pakistani-listed companies were situated in these locations.[170] In addition, these cities are spread widely throughout the country ensuring that a good geographical mix of participants was obtained. The interviewees were from 10 different industries: textile; sugar; banking; cement; travel and leisure; oil and gas products; tobacco;

[165] The Institute of Chartered Accountants of Pakistan
[166] The Institute of Cost and Management Accountants of Pakistan. One official was also a fellow of cost and management accountants.
[167] The Institute of Corporate Secretaries of Pakistan
[168] One official had graduated in Pakistan while the other got his degree from Canada.
[169] For security reasons, face-to-face interviews with them were not possible.
[170] Seven interviews were conducted in Karachi; eight in Lahore; five in Islamabad; one in Peshawar; and two in Rawalpindi.

financial services; chemical and fertilizer; and personal goods.[171] All the firms had at least one stock market listing either in Pakistan or abroad.[172]

Table 6.1 provides some basic information about the organisations where the interviews took place. For the purpose of this analysis, a unique code was assigned to each interviewee in order to maintain the anonymity of the respondents and to protect the identity of their organisations. Inspection of the table reveals that 22 of the sample firms paid dividends either regularly or occasionally; only one firm (from the sugar industry) had not declared any payouts since its inception. Thirteen firms also paid bonus shares (share dividends) instead of, or in addition to, a cash dividend. Table 6.1 further reveals that each firm was listed with a widely dispersed shareholder base. All firms had their shares quoted on the KSE while 12 also had a listing on the LSE and ISE.[173]

The Table 6.1 also provides background information about the 23 interviewees, with details on qualifications, age, experience and location. The table illustrates the mix of ages (28-66 years), experience (2.5-49 years) and qualifications among the interviews. The responses should not therefore be specific to any one category of respondent. In addition, the responses should be of interest because of the depth of knowledge and range of experience about dividends among the interviewees who took part in the research.

[171] Five interviews took place in the textile industry; four in the sugar industry; four in the banking industry; two in the cement industry; three in the oil and gas products industry; and one each in the travel and leisure, tobacco, personal goods (Jute), chemical and fertilizer, and financial services (investment) industries.

[172] Initially 26 interviews were conducted; however, two of these were excluded on the basis that the interviewees' firms were not listed either in Pakistan or any foreign country. In addition, one interview with a listed firm was excluded because the interviewee was unable to answer most of the questions. The remaining 23 interviews therefore form the basis of the analysis. One of the oil and gas products firm has a listing on the London Stock Exchange in the form of Global Depository Shares (GDS).

[173] One company from the chemical and fertilizer sector only had a dual listing on the LSE while an oil and gas products firms has an international listing in the UK.

TABLE 6.1 Background Information about the Company Officials

Interview Code	Industry	Listings	Cash Dividend	Share Dividend	Age	Qualification (s)	Experience	Based In
C 1	Textile	KSE	Yes	Yes	33	C.A.	12	Karachi
C 2	Sugar	KSE	Yes	Yes	31	Bachelor Degree	8	Karachi
C 3	Sugar	KSE	Yes	Yes	56	C.A.	31	Karachi
C 4	Sugar	KSE	Yes	Yes	66	B.Com	49	Karachi
C 5	Textile	KSE/LSE/ISE	Yes	No	56	B.Com/ C.A.	25	Karachi
C 6	Textile	KSE	Yes	No	59	ACMA	35	Karachi
C 7	Banking	KSE	Yes	Yes	39	C.A.	13	Karachi
C 8	Banking	KSE	Yes	Yes	41	C.A.	15	Peshawar
C 9	Cement	KSE	Yes	Yes	39	C.A.	11	Islamabad
C 10	Textile	KSE/LSE/ISE	Yes	Yes	60	B.Com/ Chartered Secretary	27	Islamabad
C 11	Travel & Leisure	KSE	Yes	No	32	Chartered Secretary/ MBA	6	Islamabad
C 12	Oil & Gas Products	KSE/LSE/ISE/UK	Yes	No	40	MBA	15	Islamabad
C 13	Tobacco	KSE/LSE/ISE	Yes	No	47	B.Com	17	Islamabad
C 14	Oil & Gas Products	KSE/LSE/ISE	Yes	Yes	50	C.A.	25	Rawalpindi
C 15	Banking	KSE/LSE/ISE	Yes	Yes	37	C.A.	7	Rawalpindi
C 16	Personal Goods (Jute)	KSE/LSE/ISE	Yes	Yes	28	C.A.	4	Lahore
C 17	Chemical & Fertilizer	KSE/LSE	Yes	Yes	35	ACMA	15	Lahore
C 18	Financial Services (Inv)	KSE/LSE/ISE	Yes	Yes	35	MBA	11	Lahore
C 19	Banking	KSE/LSE/ISE	Yes	Yes	29	C.A.	2.5	Lahore
C 20	Oil & Gas Products	KSE/LSE/ISE	Yes	No	38	C.A.	9	Lahore
C 21	Cement	KSE/LSE/ISE	Yes	Yes	52	PG Diploma	30	Lahore
C 22	Textile	KSE/LSE/ISE	Yes	No	55	B.Com	28	Lahore
C 23	Sugar	KSE	No	No	39	C.A.	10	Lahore

NOTE: The table provides details about the 23 interviewees. The 'listings' characteristic was based on replies to the question: "Is your firm listed on exchanges other than the Karachi Stock Exchange (Local or foreign)." The information about cash and share dividends relates to the question "Does your company pay a dividend or not? If yes: does it pay annually, semi-annually, or quarterly." KSE = Karachi Stock Exchange; LSE = Lahore Stock Exchange; ISE = Islamabad Stock Exchange. The information in the table about the interviewees was based on the responses to the questions about interviewee background contained in the first part of semi-structured questionnaire. In the table C.A. = Chartered Accountant, B.Com = Bachelor of Commerce, MBA = Master of Business Administration and interviewee C2 had a bachelors in International Relations & Economics from the US while interviewee C21 had been awarded a Postgraduate Diploma in Cost and Management Accounting.

6.3 Key Determinants of Dividend Policy

6.3.1 Importance of Dividend Policy

In contrast to the dividend irrelevance argument of MM (1961), all the interviewees considered dividend policy to be an important decision for their firms. For example, Interviewee C17, from a firm in the Chemical & Fertilizer sector, documented that: "The dividend payout ratio is among the most important agenda items in the board meeting." One of the principal reasons for this perception was a belief that an active dividend policy is an effective mechanism for attracting investment (Lintner, 1956; Brav et al., 2005). By implication, the notion in much of modern finance theory that dividend and financing policies are independent (e.g. Soter et al., 1996) was not seen as viable by the interviewees. Moreover, the discussions demonstrated that a broad interdependency of investment, financing and dividend policies exists in Pakistan (Baker and Powell, 1999). The respondents also suggested that while investors focus mainly on earnings when appraising their shares, they consider the dividend payout to be important as well; dividend payouts were seen as having particular value for retail investors in order to meet their "kitchen" expenses (Brav et al., 2005). For example, Interviewee C5, from a firm in the textile industry, stated that:

> "Dividend policy should be attractive enough for investors so that they are willing to invest generously."

6.3.2 Influence of Earnings and Past Dividends on Current Dividends

In support of Lintner's (1956) findings, all the interviewees suggested that a firm's current year's earnings were the "main" and/or "most important" factor in crafting a dividend policy (Nishat and Bilgrami, 1994; Ahmed and Javid, 2009). However, the responses also supported (although less strongly) the theoretical model of dividends proposed by Lintner which states that current dividend levels are based on this year's earnings and last year's dividend. Nonetheless, it was the current year's earnings that appeared to be the main driver.

For example, interviewee C4, a director of a sugar firm, argued that the: “Dividend is based on current earnings. All other factors are residual after current earnings when deciding upon the dividend.”

In the same manner, interviewee C22, a secretary of a textile company, noted that “the dividend set each year depends upon current earnings.” This evidence of a lack of concern with the smoothing of payouts contrasts with recent evidence for the Irish market (a market similar in size, but more developed than the KSE) in McCluskey et al., (2007) where the ‘primary concern’ of firms is reported as being “smooth growth” in payouts (p. 123).

When asked about the influence of the previous year’s dividend on current payout decisions, 56.0% of the respondents claimed to consider such information when setting the next dividend. However, the interviewees asserted that last year’s dividend was only employed for computation of the payout ratio (an issue examined in detail later) and did not play a major part in determining the change in the dividend level itself. The remaining 44.0% of the sample suggested that last year’s dividend was not considered when their firms set their dividend policy; for instance interviewee C15, from the banking industry, suggested that the previous year’s dividend played only “a little” role in the calculation of the current payout ratio. This view is in contrast with the evidence of Lintner (1956), Fama and Babiak (1968) and Naeem and Nasr (2007) where last year’s dividend was found to be a major determinant of current payout levels.

Although 56.0% of the respondents suggested that last year’s earnings were considered in dividend deliberations, on closer inspection it became evident that it was only last year’s dividend that had been influenced by this factor; last year’s earnings in fact had no major impact on the current year’s dividend and was relevant only for comparative purposes. For example, Interviewee C6, from the textile industry, stated that:

> "Last year's dividend has been based on the last year's earnings; and we have no concern with last year's earnings. It is a past transaction. We use it in the current year only for comparison and [for current dividends] calculation purposes."

Twenty-one out of the twenty-three interviewees replied 'No' to the question "Is the dividend based on last year's dividend plus a percentage increase?" suggesting that their current dividend was not based directly on last year's figure. Interviewee C5, a director of a textile firm, proved an exception to this generalisation, although he argued that this practice was adopted "to make sure that [they] have sufficient earnings for the year." Most interviewees also asserted that their firms did not have rigid formulas for deciding upon the dividend figure. Instead, each firm determined its own payout ratio dependent on the realities of the firm's situation.

6.3.3 Liquidity and Share Dividends

After current year earnings, the next most important influence on dividend policy was the liquidity of the firm, especially so in the case of firms paying cash dividends. This finding supports the work of Baker et al. (1985), but is not consistent with the explicit implications of the Lintner model. Twenty-one (or 91.0%) of the respondents claimed that, after current earnings, the availability of cash was the most important factor when setting a dividend level. Interviewee C11, a secretary of a firm in the travel and leisure industry, justified this focus on liquidity when he stated that:

> "If we do not have sufficient cash inflow after profitable business, we will not be able to pay any cash dividend. We cannot take a risk with liquidity to pay a dividend in such cases."

Interviewee C12, who worked for a very profitable firm based in the oil and gas products industry, concurred on the importance of liquidity, commenting that:

> "Circular debt and the energy crisis have negatively affected our liquidity. So our payout ratio has been on a decreasing trend for many years. Although our firm is the most profitable in the industry, we are suffering from a liquidity problem."[174]

Because of this concern with liquidity, most of the interviewees agreed that if their company was encountering cash flow problems, they would be willing to issue bonus (or 'scrip') shares instead of (or along with) paying a cash dividend. For example, interviewee C4, the director of a sugar firm, stated simply that "we declare bonus shares instead of a cash dividend in the case of liquidity problems."

The other motive for share dividends claimed by the interviewees was a desire to increase the paid-up capital of the firm; in this context interviewee C2, a director of a sugar firm, pointed out that "we issue bonus shares to increase the paid-up capital as our firm's paid-up capital is low." This propensity was especially notable in the case of interviewees from the banking industry; for instance, interviewee C7 noted that:

> "State Bank of Pakistan' regulations mean that banks are supposed to increase their paid-up capital to a certain limit in the near future to meet Minimum Capital Requirements. [175] Due to this regulation, banks are declaring bonus shares instead of cash dividends to increase their paid-up share capital. We also do the same."

Several interviewees claimed that large shareholders prefer bonus shares for tax avoidance reasons; currently, share dividends in Pakistan are not taxable. More generally, the interviewees considered it imprudent to declare share dividends unless an underlying financial reason existed, arguing that while share dividends might be beneficial in the eyes of short-sighted company officials, they were not in the long-term interests of the firm's investors because of the danger of EPS dilution. Additionally, the interviewees believed that, investors generally give more weighting to EPS than to DPS; therefore, any decrease in EPS caused by a payment of share dividends would negatively affect the share price in the future.

---

[174] The importance of liquidity in Pakistan again contrasts with evidence for the similarly sized, but more developed, Dublin Stock Exchange. For example, a questionnaire study by McCluskey et al. (2007) found this to be the least important factor in firms' dividend decision-making process.

[175] Details about the MCR are given in Section 2.4.1 in Chapter 2.

6.3.4 Taxation[176]

Ten out of the twenty-three interviewees claimed that taxation was a factor, albeit a minor one, when deciding upon a payout figure.[177] According to these interviewees, tax was primarily a concern of the shareholders, as each individual investor's tax affairs were assumed to be relatively unique and unknowable by the board of directors. The remaining 13 interviewees were even more emphatic, stating that they were completely unconcerned about the taxation implications of a firm's dividend policy. The views of Interviewee C6, who worked for a firm in the textile industry, were typical in this regard:

> "We do not have any concern about the taxation on dividend as it is the liability of shareholders to pay; it is not a part of our duty."

Perhaps one of the reasons for the ambivalence among respondents about this issue is that in Pakistan there is no taxation on share dividends**.**[178] Therefore, share dividends are obviously attractive for some shareholders[179] relative to cash disbursements; as Interviewee C17, from a firm in the chemical and fertilizer industry, put it: "shareholders pray for bonus shares to avoid taxation. However, we do not bother about taxation on cash dividends."

6.3.5 Peer Behaviour

Baker et al. (1985) explored the impact of peer behaviour on dividend policy, but this study finds little evidence of any such influence. When questioned about the attention paid to industry behaviour in the setting of dividend policy in Pakistan, 44.0% of the interviewees provided a measure of support for the view that boards look at the dividends of their

---

[176] The Pakistani economy is characterised by low tax-collection, with a tax-to-GDP ratio of 9.1% for 2010-11 (www.cbr.gov.pk). For the last two decades, the average tax-to-GDP ratio was 10.0%. (Chaudhry and Munir, 2010)

[177] The taxation of dividend and capital gains in Pakistan was elaborated in Section 2.3 of Chapter 2.

[178] Another possible reason for the lack of concern about taxation is the extent of tax evasion in Pakistan; this reached a level of 79.0% in 2010-11, up from 69.0% in 2008. This figure is much higher than for developed countries; the most recent figures for the US and the UK were 22.0% and 8.0% respectively. (www.dawn.com.pk; on June 9, 2011)

[179] Interviewee C9, from a firm in the cement industry, pointed to a possible clientele effect in this regard, noting that: "Minority shareholders like cash dividends while majority and institutional shareholders have preferences for bonus shares."

competitors when deciding upon their own payout levels. However much of this support was weak; for example interviewee C16, employed by a firm in the personal goods industry, indicated that his firm: "considered industry behaviour only for comparison purposes and did not use it as a benchmark for its own payments to shareholders." In addition, respondents from a number of companies replied that they did not consider industry behaviour due to their monopolistic positions within their respective sectors. For instance, interviewee C11, from the travel and leisure industry, stated that:[180]

> "Our company does not care about industry behaviour; as we have a monopoly position in our industry. We set a benchmark in the whole market as our payout is attractive enough."

Overall, the evidence indicates that there is very limited effective competition among the Pakistani firms regarding dividend policy; 56.0% of the interviewees indicated that dividend policy was an internal matter, free of any influence in the form of the other companies, even in the same sector. As interviewee C10, based in the textile industry, noted:

> "We consider our preferences and financial health. If we are not in a position to pay a dividend, we will not take pressure from our industry to declare a dividend."

6.3.6 Share Price Consideration

When asked about the influence of a firm's share price upon its dividends, the responses generally supported the findings of Brav et al. (2005) which revealed that any decision about share repurchases might be taken with the intention of increasing a 'low' share price. However, 78.0% of the respondents stated that the prevailing share prices of their firms did not act as an influence upon the dividend policy, while five interviewees did suggest that they keep the prevailing share prices of their firms in mind when taking their dividend decisions. The views of Interviewee C17, who worked for a firm in the chemical and fertilizer industry, were typical in claiming that his firm: "considered share prices to know

[180] Two interviewees 'C12' and 'C14', from the oil and gas products industry, had an identical stance regarding the issue, with both in agreement with 'C11'.

how much return investors would be receiving on their investment." Presumably, these interviewees then compared this return with rates on offer from other investments to judge how investors might view the dividend paid.

6.3.7 The Role of Third-Parties and Shareholder Structure

In terms of third-party' influences, several of the interviewees supported the arguments in McCluskey et al. (2007) that the dividends of unquoted Irish firms are mainly settled primarily on the basis of the advice of their lenders. The interviewees asserted that their firms took lenders (mainly banks and financial institutions) into their confidence before taking decisions about dividend payments; it became clear from the discussions that in some cases financial institutions explicitly advised borrower-firms not to pay a dividend in order to maintain a certain level of liquidity. Nonetheless, the interviewees commented that the lenders could not ultimately stop them from declaring a dividend, but instead they confirmed that consultation with the lenders could help to ensure good relations in the future. For example, interviewee C1, from a textile firm, indicated that:

> "Sometimes financial institutions and banks advise us not to pay dividends to maintain a certain liquidity level, so we consult them before dividend announcements."

The interviewees also documented the influence of major institutional shareholders on dividend decisions – in several cases shareholders had nominated members on the boards of their investee firms to safeguard their interests and influence the dividend decision. For example, a number of interviewees pointed out that the National Investment Trust (NIT)[181] has institutional shareholdings in many Pakistani companies, and nominates its own employees as board members for firms in which they invest; these individuals could therefore

[181] The National Investment (Unit) Trust is Pakistan's largest and oldest Mutual Fund, established on 12th November 1962. As of June 30 2009, NIT had funds under management of around Rs. 28 billion, invested in over 430 listed companies on behalf of approximately 56,000 unit holders (www.nit.com.pk).

attempt to safeguard the interests of the NIT via participation in corporate decisions. In this regard, interviewee C12, from an oil and gas products firm, noted that:

> "The Pakistani government, being a major shareholder, influences the decisions of the company especially in the case of circular debt and the energy crisis. Our firm is facing problems with the recovery of debts as some of our customers are also government departments. So our firm cannot pressurise the departments to pay the debts. However, we try to absorb this pressure and focus on our firm's preferences."

Consistent with this argument, interviewee C20, also from the oil and gas products industry, argued that the "government, being a major shareholder of the company, has influence regarding when to pay dividends."

Eleven of the interviewees indicated that third parties have no direct influence on their firms' dividend decisions; while they had to obey the legally enforced SECP regulations, a great deal of flexibility was still permitted. Interviewee C14, from the oil and gas products sector, summed up this view as follows:

> "The entity perspective is preferred as compared to third parties; the company's interests are focused on first. If the dividend payment does not suit the firm, it will never pay the dividend."

In response to a question regarding the impact of shareholders' preferences on a firm's dividend policy, 52.0% of the interviewees said that they tried to cater to the needs of their investors, although it was recognised that it would not be possible to meet the needs of all shareholders. The interviewees asserted that their firms try to satisfy the needs of the major shareholders; in particular, in family-owned businesses in Pakistan, the owners act as managers and members of the board and they might influence the decision in a substantive manner. Interviewee C5, a director of a textile firm, noted that his firm did consider: "the preferences of their shareholders", especially the major shareholder, as their company was owned by a family. The remaining 11 interviewees did not take shareholders' preferences into account as the dividend decision was seen as an internal policy matter.

6.3.8 Dividends as a Residual

In contrast to the dividend irrelevance model of MM (1961), where the dividend is seen as entirely separate from the financing and investment policies of a company, most of the Pakistani firms interviewed for the present study stated that the payout level was related to the cash flow implications of the firm's other key decisions. Twenty-one of the interviewees indicated that their company's dividend policy fluctuated with changes in the firm's investment and financing needs, with most placing more importance on investment and financing needs than on dividend requirements themselves. As, interviewee C12 noted that, "if [his] firm did not think about the future investment projects, the company [would] wind up."

One of the apparent reasons for the dominance of investment requirements was the scale of expansion projects undertaken by newly-established Pakistani firms; such firms might reasonably be expected to be more focused on growth than on dividend payments (Fama and French, 2001). This argument was endorsed by interviewee C23, employed by a profitable firm in the sugar sector, which had not declared a dividend since its inception because the firm prioritised growth; specifically, they: "did not declare a dividend due to [their policy of] wealth accumulation for expansion and the financing of future investment projects." These arguments were consistent with those of interviewee C5, who stated that his firm's "first preference was for investment". The interviewees' attitude to the notion of dividends as a residual also depended upon their sources of financing; if the dividend was financed by sources other than issuing new shares, then the dividend was perceived as being separate to the investment and financing needs of the firm (MM, 1961). For example, interviewee C6, a financial manager in a textile firm highlighted that:

> "The dividend is a separate thing from investment and financing policies because our financing needs are based on banks' lending. We borrow from banks and financial institutions for the investment projects of the organisation. So the dividend payment does not affect the amount allocated for investments."

However, some interviewees believed that share dividends could be used as a source of finance; by declaring share dividends, a firm might increase its paid-up capital and also save cash for future investment projects. In this case, dividend policy was seen as being interrelated with the financing and investment policy of the organisation; interviewee C3, a director of a sugar firm, acknowledged this explicitly:

> "Bonus shares are a substitute for cash dividends; these are being used as a source of financing for the firm to increase its paid-up capital as our firm capital level is low at the moment."

In conclusion, the interviewees believed that the dividend decision was dynamic in nature, but they attached more importance to their firm's investment and financing needs. It seems reasonable to conclude that on the basis of this evidence, in Pakistan the dividend is viewed as a residual of financing and investment requirements.

6.3.9 Target Payout Ratios

Part of the interviews focussed in detail on the issue of payout ratios. It quickly became evident that, in contrast to Lintner (1956), most Pakistani firms did not have target payout ratios or formal speed of adjustment processes. In response to a specific question about the existence of a target dividend payout ratio, 87.0% of the interviewees stated that their firm did not pay out a constant proportion of earnings as dividends, with the actual payout ratio instead being revised each year depending upon earnings. This finding contradicts evidence in Ahmed and Javid (2009) which showed that Pakistani firms had target payout ratios (ranging from 25.0% to 39.0%) with firms taking from between 1.6 to 2.4 years to get to this target level. Also, in contrast to Lintner's original analysis (where a speed of adjustment factor of 0.3 was reported) the interviewees claimed that their companies did not use gradual increases to move actual payout ratios to targets; current earnings simply dominated the decision-making process. For example, interviewee C22, a secretary of a

textile firm, commented that: "the dividend is set each year dependent upon current earnings," while, interviewee C11, a secretary in a travel and leisure firm, noted that: "there is no definite formula for payout; it is based on current earnings." There were some alternative views expressed, however, these included interviewee C2, who suggested that a target payout ratio did exist within his firm; due to cyclical industry factors, this target payout ratio was dependent in practice on current earnings. Overall, the comments of the interviewees were consistent with those relating to the determinants of dividend policy in general and suggest that most Pakistani firms do not implement any specific formula for determining a payout ratio. Instead, firms analysed their individual circumstances when choosing payout ratios; in this context interviewee C5, a CFO of a textile firm, highlighted his firm's policy for payout ratio determination as follows:

> "The dividend payout ratio should not offer a return less than the bank interest rate. Otherwise, investors will switch over their investment to banks if our dividend payout is less than this level."

Another interviewee C15, a vice-president of a finance division in a bank, agreed that his firm's dividend policy was very flexible and elaborating thus:

> "We suggest different payout ratios and the board selects one of these depending on circumstances. So the dividend payout is settled on an *ad-hoc* basis in the meeting."

Similarly, interviewee C1 highlighted that while his firm's current dividend was usually based on last year's figure plus a percentage increase this was subject to sufficient earnings being available.

Twenty of the interviewees claimed that they did not maintain a consistent payout ratio; generally this was because, as noted early, dividend policy depended mainly on current earnings. Moreover, these companies did not appear concerned with having to reverse dividend changes in later years. Interviewee C21, a financial manager of a cement firm, took this view and claimed simply that:

> "There is up and down in the payout ratio depending upon the current earnings and the situation of the firm and market."

This apparent acceptance of dividend payout being subject to the full volatility of earnings is contrary to Lintner's evidence of a management preference for moderate and planned changes in payouts. However, the interviewees commented that fluctuations in dividend payouts were so common in Pakistan that investors were generally unconcerned about the variability. One reason behind the lack of focus on consistency in payouts may reflect that dividend cuts were not believed by the interviewees to be perceived as adverse signals in Pakistan, certainly to the extent that has been documented in developed markets such as the US (Lintner, 1956; Baker et al., 1985; Baker and Powell, 1999; Brav et al., 2005); the UK (Dhanani, 2005); and Ireland (McCluskey et al., 2007). While some companies tried to maintain a certain level of consistency in the payout, even they could not achieve a completely stable dividend in the face of variability in current earnings (Naeem and Nasr, 2007). For example, interviewee C4, a director of a sugar firm, commented that his company tried: "to maintain consistency in dividend yet it depends upon current earnings."

In general, Pakistani firms do not appear to have specific formulas for establishing dividend payout levels. Most of the firms interviewed did not have target ratios, speed of adjustments or consistency in setting the payment level predicted by Lintner and others. Instead, the dividend payout fluctuates primarily according to current earnings, albeit with each firm crafting its policy on an *ad-hoc* basis according to its circumstances and market conditions.

6.3.10 Other Influences

A number of other factors were mentioned by particular interviewees as affecting the formulation of their dividend policy. For example, rights issues by subsidiary and associate

firms might force the holding (parent) company to retain cash in order to finance the maintaining of its pre-issue proportional holding in the controlling or subsidiary entities.[182]

The political situation also played a role in the dividend-setting process. Among those interviewees who expressed such a view it was pointed out that if the political situation in Pakistan was more stable there would be greater certainty about future streams of cash inflows; this confidence would in turn allow firms to pay a relatively high percentage of earnings as dividends. In addition, moves by the SBP to increase the MCR of local and foreign banking companies led several interviewees to believe that firms ought to increase their paid-up capital and declare share dividends instead of making cash payments. As a result, they argued that the balance among share and cash dividends has changed; banks (especially small ones) have been at the forefront of these moves.

Some of the interviewees referred to the performance ranking of listed companies issued by the KSE, which identifies the top 25 companies each year on the basis of their efficiency in different areas, including the declaration of 'sizeable' dividends for shareholders (Kaleem and Salahuddin, 2006). The cache associated with a good ranking was mentioned as a specific influence on dividends and indeed many Pakistani firms quote the ranking in their annual reports and advertisements.[183] However, the work of Brav et al. (2005) suggests that the dividend policy of US firms is not seen as affecting credit ratings, indicating that any such 'prestige' factor is less important in the (very different) US setting.

Regarding the weightings of these factors in a firm's dividend policy, interviewee C17 noted the time-varying nature of their impacts; he stated that "all the factors matter; some factors are important in one year, but not dominant in other years." For example, in one year, a firm may declare a share dividend to meet the MCR requirements of the SBP, but in

[182] The interviewees documented that their firms conducted board meetings after the declaration of dividends by subsidiary and associate firms.
[183] For example, Fauji Fertilizer Company Limited highlighted the KSE ranking over a period on its website under the caption "Distinctions/Awards".

other years the firm may issue share dividends to save cash for future expansion projects. The basis of the dividend policy therefore changed according to the preferences of a firm at a particular point in time. Similarly, the interviewees asserted that they could not prioritise or rank the factors as certain of these were given more importance at certain points in time than others.

6.4 Market Signalling

6.4.1 Background and Selection of Financial Analysts Sample

This section outlines the interviewees' views about the impact of dividend announcements on share prices. The perceptions of the 16 financial analysts and the 23 company officials[184] employed in the earlier parts of the chapter were sought. Each interview (or part of an interview for the corporate-based individuals) comprised eight semi-structured questions relating to the potential role of dividend announcements as market signals.[185]

The interviews with the financial analysts took place in two cities – Karachi (with 9 interviewees) and Islamabad (with 7 interviewees). These cities were selected because stock exchanges exist in these locations (see Chapter 2).[186] As regards the highest qualification levels amongst the analysts, four were chartered accountants, four had MBA degrees, and two had Masters degrees in Economics, while the remaining six interviewees had Bachelor degrees in a range of disciplines including commerce, business administration and arts. The interviewees' length of experience ranged from two to forty years and 11 were formal members of one of the stock exchanges in Pakistan.[187] Two interviewees worked in chartered accountant's firms; two were employees of a stock exchange and one was a reporter/analyst for a news channel based in Pakistan. The interviews lasted around twenty minutes on

[184] The details of the 23 officials from firms are as presented in the previous section.
[185] Appendix 6.4 details the questions ask to the financial analysts.
[186] Due to time constraints, interviews were not possible in Lahore, where the third Pakistani stock exchange operates.
[187] The remaining five interviewees were not members of the stock exchanges, but were experts in the trading of financial securities.

average with three being recorded with the permission of interviewees. The recorded interviews were fully transcribed while for the remainder, a set of complete notes with all answers and important quotations was completed at the time and checked for accuracy immediately after the discussion ended.

Table 6.2 summarises the detail of the 16 financial analyst interviewees. For the purpose of this analysis, a unique code (A: Analyst) is assigned to each interviewee in order to distinguish it from company officials (C) and to maintain the anonymity of the respondents. The table reveals the mix of ages (24-66 years), experience (2-40 years) and qualifications among the interviews.

Table 6.2 General Information about the Financial Analysts

Interviews	**Age**	Qualification (s)	Experience	Location
A 1	60	MBA	35	Karachi
A 2	31	C.A.	14	Karachi
A 3	50	B.A.	20	Karachi
A 4	66	B.A.	40	Karachi
A 5	24	BBA/CFA	2	Karachi
A 6	30	B.Com	3	Karachi
A 7	54	B.Com/C.A.	30	Karachi
A 8	60	B.A.	30	Karachi
A 9	32	C.A. (Finalist)	9	Karachi
A 10	35	M. Phil (Economics)	10	Islamabad
A 11	40	Master in Business Education	12	Islamabad
A 12	44	MBA (MIS and Finance)	16	Islamabad
A 13	55	C.A. (Trainee)	10	Islamabad
A 14	57	Master of Economics	18	Islamabad
A 15	31	B.Com/ICMA-inter	12	Islamabad
A 16	38	MBA (Finance)	12	Islamabad

Note: The table provides background information about the financial analyst interviewees. The information in the table based on responses to the questions about interviewee background contained in the first part of the semi-structured questionnaire. In the table, C.A. = Chartered Accountant, CFA = Certified Financial Analyst, B.Com = Bachelor of Commerce, B.A. = Bachelor of Arts, MBA = Master of Business Administration, ICMA = Institute of Cost and Management Accountant; interviewee A12 did an MBA with dual majors in finance and MIS (Management Information System).

6.4.2 Dissemination of Information

In Pakistan, dividends and earnings announcements are made at the same time. Following the board meeting, all announcements are conveyed to the stock exchanges of Pakistan.[188] According to current rules (See Section 2.4.2 in Chapter 2), companies are not allowed to make these announcements other than via the stock exchanges of Pakistan in order to avoid the leakage of information. According to the Code of Corporate Governance (2002), Pakistani companies must issue their financial statements quarterly, including the earnings per share figure, whereas companies have some discretion over the announcement of their dividend per share. However, all the 39 interviewees indicated that both the earnings and dividend announcements were made to the market at the same time immediately after the board meeting.

In the light of the evidence presented earlier in Chapter 5 of this thesis of possible information leakage regarding dividends, the interviewees were asked specifically about this issue. However, they appeared to believe that the SECP takes reasonable care to stop the leakage of information before corporate announcements. In this regard, the members of the board are not allowed to trade their shares seven days prior to a meeting. In addition to this restriction, significant financial penalties are imposed on any individual or company found guilty of insider trading, while the company itself can be delisted from the stock exchanges of Pakistan on the basis of facilitating insider trading in its shares via selective information release (See Section 2.4.2 in Chapter 2).

There was a mixed response from both financial analysts and company officials regarding the leakage of dividend information before formal announcements. Seventeen of the twenty-three company officials denied that any information about dividends leaked to the market, asserting that any significant unexpected returns prior to the announcement date

[188] The announcements are displayed at the desktop of each member of the stock exchanges of Pakistan. The announcements are also made via amplifier on the Karachi Stock Exchange.

related to fundamental and technical analysis performed by financial analysts. For example, interviewee C11, a secretary of a travel and leisure company, stated that:

> "The leakage of information is a crime, both legally and morally. We do not do this. Any significant share price changes before the announcement date are due to guesswork by financial analysts who trade on securities on the exchanges."

The interviewees also emphasised that SECP regulation and internal control systems established by their own firms' management ensured that the leakage of dividend information did not take place.

The remaining six company officials were less emphatic in their responses; they suggested that while information 'might' in theory leak to the market, the chances of this happening in practice were quite low. For example, Interviewee 'C2' noted that:

> "Let's suppose we are giving RS. 6000 per month to an employee, which is quite low; that employee may leak the information for personal gain. However, the number of employees who know about dividend decisions prior to their announcement is low."

Financial analysts held views about the leakage of information similar to the six company officials. Some 11 out of 16 indicated that information about dividends could reach the market before any official disclosure; however, they suggested that the likelihood of this happening to any great extent was low. Moreover, they also believed that it was both illegal and unethical to obtain information prior to formal announcements by a company. For example, financial analyst A15 stated that:

> "The leakage of information is very rare. Any significant returns before the dividend announcement date are mainly due to the guesswork of the analysts. The insider trading contributes a little bit in the returns. The expectation of the market also matters a lot in fluctuation of the share prices. If the expectations are more than the actual, the share prices will decline and vice versa.

However, financial analyst A14 suggested that significant share price increases before the announcement date might be a result of market gossip; he stated that:

> "On average, there is no significant increase on or after the announcement dates. However, we observed significant movement in share prices before announcement dates. The reason behind the movement is the rumours in the market about the coming

> announcements. And this is a general behaviour of the investors all over the Pakistani stock exchanges."

The interviewees noted that rumours about a particular company were typically based on financial and technical analysis by market professionals, although the number of investors understanding financial and technical analysis was noted as being low across the three stock exchanges of Pakistan.

6.4.3 Share Price Impact of Dividends

The interviewees offered strong support for the notion that an increase in dividends usually leads to a rise in share prices. Eighty-seven percent of the company officials and financial analysts supported this argument: i.e., that investors gain significantly from the news contained in dividend announcements because of information asymmetry (Baker, 1985; Baker and Powell, 1999; Brav et al., 2005; McCluskey et al., 2007). In this regard, interviewee C6, a financial manager at a textile firm, noted that "share prices go up due to announcements of an increase in dividend in a straight-forward way." The respondents also asserted that the expectations of investors in the market played a key role in determining the magnitude of any share price movements associated with a dividend change; if the actual payout was more (less) than expected then the share prices moved in an upward (downward) direction. Typical expression of this belief came from financial analyst A12:

> "Definitely, an increase in dividend usually leads to a rise in share prices; however, it depends upon the expectation of the market as well."

The interviewees also highlighted the role of the number of shares actually trading on the magnitude of any share price changes. These "free floats" were low for family-owned companies, ranging from 5.0 to 35.0% of the total number of outstanding shares for the

sample companies.[189] The interviewees who worked for family-owned firms argued that earnings and dividend announcements did not affect the firms' share prices because the trading volumes of the firms' shares were very low. In contrast, interviewees suggested that firms with a high free float level experienced significant movements in equity values when dividends were announced. The respondents did not support the hypothesis advanced by Woolridge and Ghosh (1985), John and lang (1991) and Soter et al. (1996) whereby an increase in dividends can be perceived as bad news if the firm has sufficiently profitable investment projects. For example, financial analyst A8 pointed out that "investors in Pakistan do not think in this way"; he added that short-sighted investors were the norm due to political instability in the country. In other words, Pakistani investors are perceived as making superficial assessments of the market motives behind the announcements.

Similarly, a dividend cut was generally seen as bad news; 87.0% of the company officials and financial analysts believed that the first impression of a dividend cut – especially a reduction in payouts to zero – was bad, leading to a decrease in share prices. However, the respondents did indicate – unlike with an increase – that they looked at the motives behind the dividend cut when arriving at any conclusion. And if the dividend cut was seen as facilitating investment in future profitable projects then share prices might recover after the initial shock (Woolridge and Ghosh, 1985). Financial analyst A2 summed up this perspective thus:

> "Yes the first impression of a dividend cut is bad; however, we also look at the motives behind this cut like expansion, payment of loan etc."

The interviewees mentioned that different methods were used to educate investors about the reasons for dividend cuts; these included announcements made to the stock exchange and the directors' report. After the board meeting, some of the firms give additional

[189] In these cases, the families did not wish to sell the shares to the general public in order to maintain their ownership stakes.

information about the motives for the dividend cut along with the normal announcements required by stock exchange regulations. The interviewees believed that this additional information flow was beneficial in terms of offsetting the initial negative impression conveyed by a cut. In this context, interviewee C1, the CFO of a textile company, commented that:

> "A dividend cut is perceived as bad news in the market; however, when we educate shareholders about it being related to positive NPV projects, then the share price comes to its normal position."

The interviewees also reiterated their view that expectations of the market and the free floating of shares play a major role in share price fluctuation on the main Pakistani exchanges.

There was evidence of a perception that the size of a dividend change could influence share prices; the interviewees asserted that the bigger the change, the larger the impact on equity values. More specifically, the interviewees mentioned a positive change in dividend of more than 20.0% (or a cut to zero) as likely to have a significant effect. For example, interviewee C6, the financial manager of a textile firm, suggested that:

> "A small dividend cut is not as important; however, a big percentage dividend cut is perceived very badly by market participations."

The last question asked about influences on the magnitude of any change in share prices following an increase or decrease in dividend. If the free float level was low (because ownership was concentrated in the hands of a small number of institutions or families), the impact of any dividend announcement on share prices would, according to the interviewees, be slight because of the lower trading volume occurring in such cases. In addition, market conditions (i.e. the relative bullishness and bearishness of the market) were thought to be relevant: the impact of an increase in dividends was thought likely to be more positive in a bullish market than in a bearish one. In particular, a bullish market might see the trading

volume of shares on the stock market increase, and this improved investor sentiment might in turn drive prices upward.

About 35.0% of company officials believed that the impact of a dividend cut was the most pronounced, with only 22.0% responding that the effect of a dividend increase was bigger; 26.0% of the respondents believed that it depended upon the expectations of the market about a particular company. The responses of the financial analysts were more equivocal, with 31.0% of the respondents believing that the impact was most severe for dividend cuts, but the same percentage believing that the opposite was true. Nineteen percent of financial analysts suggested that the market responded equally to both, and the same proportion argued that any change in share prices depended upon expectations.

According to Lintner (1956) and Brav et al. (2005) conservatism regarding dividend changes was due to the fact that the impact of a cut was more pronounced than an increase. However, as discussed earlier, there was no evidence of concern about changes in dividend payouts in Pakistani firms; consistent with this reasoning the negative impact of dividend cuts was not thought to be as severe evidence suggests is the case in most developed countries. Similarly, the impact of dividend increases or cuts was thought to be the same.

6.4.4 Signal Dominance and Interrelations

When asked about whether earnings or dividend was the dominant signal all of the 39 respondents indicated that both items of information matter, with their interrelations being recognised[190] (Lintner, 1956; Brav et al., 2005; McCluskey et al., 2007), but the dominant influence was seen as earnings per share. In total, 61.0% of company officials prioritised EPS as per Watts (1973)'s results for the US; Lonie et al. (1996)'s evidence for the UK and McCluskey et al. (2006)'s findings for Ireland; while 22.0% of respondents attached more

[190] Financial analyst A2 noted that, "When both dividend and earnings figures are in the same increasing direction; the impact is much stronger than if they move in opposite directions."

importance to dividend per share as per Pettit (1972) and Kane et al.'s (1984) findings for the US and Easton's (1991)'s evidence for Australia.[191] The proportions were different for financial analysts: 25.0% attached more importance to EPS; 12½ % focused more on DPS; while 44.0% placed equal importance on DPS and EPS.[192] Financial analyst A11 commented that the time horizon might be a factor in explaining which of the two variables was more important:

> "Investors look at both dividend and earnings figures. However, long-term (real) investors have a greater preference for EPS news, while short-term investors (speculators) attach more importance to DPS."

Twelve out of the twenty-three company officials, and 56.0% of the financial analysts, believed that dividend announcements conveyed a signal about the future earnings prospects of a firm (Lintner, 1956). However, the remaining respondents were of the view that factors other than dividends could better predict earnings; as dividends are based on current earnings they are not related to future profits or cash flows and so forecasts based on these variables are of only limited value-relevance. These interviewees indicated that current earnings could better predict future earnings than could current dividends. Moreover, as dividends are generally based on current earnings in Pakistani firms, sound earnings mean substantive dividend payments, which lead in turn to positive future earnings prospects.

6.5 Conclusion

This chapter has provided detailed evidence about the views of companies and financial analysts regarding dividends in Pakistan. In terms of the determinants of payout levels, the discussions revealed a corporate focus on current year earnings and liquidity; prior year earnings and dividends are used, but primarily for comparison purposes rather than as inputs into the decision. In general, although dividends appear to be set by reference to

[191] Eight percent of respondents gave equal weighting to both DPS and EPS.
[192] Two company officials and two financial analysts did not give meaningful answers in this regard.

current earnings and liquidity level, there is no clear formula that would allow stylised facts of the type Lintner or others have suggested for developed countries to be drawn up for Pakistan. In addition, there is evidence of support for the notion of dividends as a residual, whereby the figure emerges only after consideration of investment and financing needs.

In terms of the impact of the announcements, one key point of note is that EPS appears to dominate the (concurrent) signal provided by DPS figures, although both are seen as important. This evidence is consistent with the evidence in Chapter 5 of earnings acting as the dominant signal in the marketplace. While increases (decreases) are believed to have positive (negative) impacts on equity values, contextual factors such as free-float levels and market condition were important. In terms of any information leakage – which the quantitative results in Chapter 5 suggest may be a factor in Pakistan – it was observed that the SECP make efforts to avoid this taking place and its widespread existence was not consistent with interviewees' perceptions. Having presented the final part of the empirical analysis, the remaining chapter of the thesis now brings together the evidence and attempts to reach some cogent conclusions.

CHAPTER 7

CONCLUSIONS

7.1 Introduction

This chapter summaries the main findings of the thesis; it reports the conclusions about the importance of dividend policies in Pakistani firms. This importance is examined by studying the impact of dividend announcements on the share prices of Pakistani firms as well as by ascertaining the views of company executives and financial analysts about dividend policy issues. Very little work has been undertaken in this area within Pakistan. Those small numbers of investigations that have been conducted with Pakistani data have used regression analysis and event study methodology to examine the relationship between dividend announcements and share prices; such investigations have typically employed a short time series of observations for a relatively small sample of firms (Nishat, 1992; Nishat and Bilgrami, 1994; Nishat and Irfan, 2001; Kanwer, 2002; Kaleem and Salahuddin, 2006; Naeem and Nasr, 2007; Zaman, 2007; Mubarik, 2008; Ahmed and Javid, 2009; Akbar and Baig, 2010). While a sizable body of work on the dividend issue has been conducted in other (mainly developed) countries, the unique tax system of Pakistan, where capital gains were not taxed before June 2010, make comparisons with other investigations difficult; the study of how and why Pakistani firms pay dividends despite the tax advantages of capital gains suggest that the country represents an interesting research site. This study makes a useful contribution to the finance literature on how and why Pakistani firms paid dividends from 2005 to 2009 and whether any dividend payout acted a signal about a firm's future prospects in a world characterised by information asymmetry.

The thesis used an event study method and interviews with executives as well as analysts to ascertain the impact (and perceptions thereof) of dividend announcements on the share prices of firms listed on the KSE. This event study focused on 639 dividend announcements for 202 firms over the period 2005-09. Interviews were also conducted with 23 company officials and 16 financial analysts to analyse their perceptions about the reasons

for dividend payments. Thus a mixed-methods approach was adopted for the research; it was hoped that the limitations of one approach would be compensated by the strengths of the other. Further, no previous research in this area had sought the views of practitioners about their views on why dividends are paid in Pakistan and the factors considered when determining the dividend payout level; this gap in the literature needed to be filled.

The remainder of this chapter is organised as follows. Section 7.2 discusses the main findings of the thesis while Section 7.3 evaluates the contributions of the work and the implications of the results. Suggestions for future research in this area are outlined in Section 7.4. Finally, Section 7.5 highlights the limitations of the study.

7.2 Main Findings of the thesis

The main findings of the thesis are based on the research objectives which were established at the start of the dissertation: firstly, to ascertain whether dividend announcements convey information which affects a firm's value in the Pakistani market; secondly, to investigate any interaction effect between the joint announcements of dividend and earnings; and thirdly, to determine the practices/perceptions of company officials and financial analysts (investors) about dividend policy and signalling in Pakistan. A number of findings emerged from the event study method and interviews with company officials as well as financial analysts that address these objectives.

First, the findings suggest that dividend announcements do not convey information to Pakistani investors on the day when the news was published; on average, the event study results show insignificant abnormal returns on the dividend announcement date for the all 639 announcements. When the results are analysed by sub-group according to the type of dividend-change a similar picture emerges; abnormal returns are insignificant on announcement day for all three sub-groups – DD (dividend-increase); DD (dividend-

decrease) and DnC (dividend-no-change). These results suggest that, in general, the behaviour of share prices for Pakistani firms is different from the findings for other international studies (Pettit, 1972; Lonie et al., 1996; McCluskey et al., 2006); the signalling hypothesis for DI (DD) announcements which predicted positive (negative) unexpected returns was rejected. However, among the findings for the DnC sub-group, there is some support for the signalling hypothesis as only normal returns were documented by the event study. Further investigation shows that when firms were allocated to nine groups on the basis of both their dividend and earnings change, no significant abnormal returns were documented for the announcement date. In contrast to these findings for the event study, a different picture emerges from an analysis of the interviews. Both company officials and financial analysts believed that news of a dividend did convey important information about company prospects to outside investors. Eighty-seven percent of the company officials and financial analysts supported the notion that an increase (cut) in dividends usually leads to a rise (fall) in share prices. However, the respondents believed that the expectations of the market played a major role in determining any fluctuation in share prices around the announcement date; i.e., if the actual payout was more (less) than expected then the share prices moved in an upward (downward) direction. In addition, the investors acknowledged that they considered the explanations given by the company for any dividend cut. For example, if a dividend cut was proposed in order to fund positive NPV projects then share prices might recover after the initial disappointment over the reduction in dividends (Woolridge and Ghosh, 1985; Soter et al., 1996). The interviewees also noted that free float of the shares also affected the magnitude of price change; if the number of traded shares was more (less) the movement in share prices would be high (low). One explanation for these insignificant unexpected returns might be the major shareholdings in Pakistani firms are owner-managers (mostly family-owned businesses); 40.0% of the shares traded in Pakistani market are owned by directors

and promoters (Lukman, 2010). These insiders know the information in advance and such news will be impounded in the share price before becoming available to the market; in these cases, the formal announcement might not surprise many shareholders (Mollah, 2001). The interviews with executives further strengthened this argument as they believed that major shareholders, especially family-owned businesses, in Pakistan influenced the dividend decisions in a substantive manner.

Second, one reason for the insignificant unexpected returns on the dividend announcement day might be leakage of information to the market before the formal news is disclosed by a firm; significant positive mean unexpected returns were documented for day t-2. A more detailed investigation of these significant unexpected returns on day t-2 reveals that most of the change related to DI and DnC sub-groups. Furthermore, unexpected returns were not just associated with the news about dividends – announcements of earnings also influenced the results; in fact, the significant mean abnormal return on day t-2 was due to the performances of firms in the DDEI (dividend-decrease earnings-increase) and DDEnC (dividend-decrease earnings-no-change) groups while the significant mean excess returns was attributable to companies in the DIEI (dividend-increase earnings-increase) group. A diagrammatic analysis of the cumulative abnormal returns and cumulative excess returns strengthens this view that information may have leaked to the market, as most of the fluctuations took place before the announcement date. An analysis of the interviews revealed a mix of responses from both company executives and financial analysts about the leakage of dividend information. The views that this type of information leaked to the market before its publication was generally supported by financial analysts; however, the respondents believed that the occurrence of such incidents was very low. On the other hand, the company officials denied that insider trading took place. This denial by the company officials is hardly surprising as it is illegal for any person to leak information before its general disclosure to the

public; significant penalties can be imposed on any individual or company found guilty of insider trading in Pakistan.

Third, the results of the event study suggest that earnings are the dominant signal among the two disclosures. An analysis of the statistics reveals that the highest cumulative abnormal return was documented for the DDEI group; this implies that investors give more weight to the earnings increase as compared to the dividend cut. As already discussed, the significant positive abnormal returns on day t-2 was driven mainly by three dividend-earnings change groups – DDEI, DDEnC and DIEI – where the reported earnings either increased or remained unchanged. These results suggest that the market participants are responding more to the earnings news than the dividend signal. An analysis of the regression results confirms this impression about the dominance of the earnings signal; a significant positive coefficient (0.0263) was found for the DDEnC sub-grouping dummy and abnormal returns on the announcement date. Consistent with this large-sample evidence, all 39 of the respondents expressed the view that both dividends and earnings matter but earnings per share appears to dominate the (concurrent) signal provided by dividend per share. Nonetheless, the respondents believed that dividends convey information about the future earnings of a firm (Lintner, 1956).

Fourth, the results from this study suggest that the market responds to the joint news of dividend and earnings information in a complex fashion; it is the interaction between these two disclosures (which are typically published at the same time) that informs market opinions about share values. The results indicated that there was a statistically significant interaction effect influencing the market's reaction to the joint dividend-earnings signal. To test for an interaction effect, the study employed OLS analysis where abnormal returns were regressed on the changes in dividends, changes in earnings and eight dummy variables, (constructed on the basis of joint directional changes in dividend and earnings). The regression analysis

shows that the interaction F-statistic had a significant value of 3.04 at the 5.0% level for the analysis of announcement date returns. This result implies that all the dummy variables for the dividend-earnings change groups jointly explained some of the variability in the abnormal returns, over and above that explained by the two variables representing the magnitude of the changes. Therefore, the results supported the findings of previous studies in this area (e.g., Kane et al., 1984; Easton, 1991; Lonie et al., 1996). A detailed investigation of this interaction effect revealed that the significant results were mainly driven by dummy variables for three groups (DIEI, DDEnC and DnCEnC groups). The significantly positive role of two of the three EnC groups implies that investors reacted positively to news where a previous level of earnings is maintained despite the lack of a dividend decrease (Lonie et al., 1996). Similarly, most of the interviewees believed that when both dividend and earnings figures are in the same direction; the impact is much stronger than if they move in opposite directions.

Fifth, the analysis of the findings from the interviews with company executives regarding the determinants of the dividend policy shows similarities, despite the absence of a capital gains tax in Pakistan, with the results from the US study of Lintner (1956); in particular, most companies claimed that they based their dividends primarily on current earnings. However, unlike Lintner's findings for the US, the Pakistani executives asserted that past dividends were not an integral component of dividend policy. Instead, the interviewees suggested that the previous year's dividend and prior year's earnings are used primarily for comparison and computation purposes rather than as important inputs into the dividend decision process. Moreover, the respondents documented that liquidity was the second most important factor in dividend decision process after current earnings (Brittain, 1966). The finding is inconsistent with the recent interview-based results for Ireland in McCluskey et al., (2007). In cases where liquidity was a problem, the firms tended to consider bonus shares (i.e. share dividends) instead of (or along with) cash dividend. Other

motives expressed for using share dividends were a desire to increase the paid-up capital of the firm and to avoid taxation liabilities (share dividends are exempted from taxation in Pakistan).

Sixth, most of the executives interviewed suggested that their firms did not have target payout ratios, a constant speed-of-adjustment or a rate at which dividends changed to reach a new payout level. The interviewees suggested that there was less consistency in setting the payment level than that reported by Lintner and others. The company executives asserted that the dividend payout of their firms primarily fluctuated according to current earnings, but with each firm crafting its policy on an *ad-hoc* basis according to its circumstances and market conditions. The results from the interviews indicated the absence of any simple formula that would allow conclusions of the type Lintner and others have suggested for developed countries to be drawn in Pakistan. Moreover, the interviewees suggested that fluctuations in dividend payouts were so common in Pakistan that investors were generally unconcerned about such variability. One reason behind the lack of focus on consistency in payouts was that dividend cuts were not perceived by the interviewees to be adverse signals – certainly not to the extent that has been suggested in developed markets such as the US (Lintner, 1956; Aharony and Swary, 1980; Baker et al., 1985; Baker and Powell, 1999; Brav et al., 2005). The results of the event study would add some support to this notion; for example, firms in the DD sub-group did earn some significantly negative returns but only on day t+4 and day t+5. If these unexpected share price moments are in response to the dividend news on day t_0, the results suggest that Pakistani investors are sluggish in reacting to the news of a dividend cut and take time to impound the information into share returns.

Seventh, some company officials highlighted some ‘other’ variables which are considered to be important in the dividend decision process. The results of the interviews

contradicted the dividend irrelevance argument of MM (1961) since most executives considered the payout issue to be important part of their corporate management duties. In addition, a number of respondents concluded that dividend, investment and financing decisions were interrelated; however, in this context they admitted that the dividend was essentially, a residual emerging only after financing and investments needs were fulfilled. Most interviewees did not attach much importance to the impact of taxation on dividends. In line with the findings of McCluskey et al. (2007) for quoted firms, some respondents in this research argued that they tried to cater to the tax benefits of the shareholders; however, tax was generally seem as being a concern for the shareholders and not the firm itself. The interviewees also asserted that third parties (such as banks, government and institutional shareholders) had little influence on the dividend decision process in their firms. Instead, the interviewees considered the dividend decision to be an internal matter and did not pay a great deal of attention to the dividend policies of peers in the same industry. However, the interviews claimed that the political and economic conditions of the country affected their dividend decision process, while they also acknowledged that the ranking issued by the KSE (discussed in Section 2.5.1), which identifies the top 25 best performing companies each year, was also a driver of dividend disbursement decisions in Pakistan. A sizable dividend payment is one of the prerequisites for inclusion in the list and the cache attached to it appears to motivate the Pakistani firms' payout decisions.

7.3 Contributions and Implications of the Thesis

This research makes a number of contributions to the finance literature in general and to studies about the Pakistani market in particular. First, the results of the events study reject the signalling theory of dividend policy (Mollah, 2001). The findings show that no significant unexpected returns can be earned on the announcement date by trading on dividend news; it

implies that investors cannot earn abnormal profit on the announcement dates. Thus strategies which may provide profitable opportunities in other markets if dividend change is correctly anticipated will not work in Pakistan.

Second, the findings of the current study show a great deal of consistency with the results from investigations of other emerging stock markets (such as Glen et al., 1995; Grag et al., 1996; Mollah, 2001); the findings suggest that emerging markets behave differently from their developed market counterparts. The results of the thesis thus strengthen the notion that models applicable in a developed stock market may not be completely appropriate in the context of an emerging stock market. Similarly, the current findings also support the general notion that studies which have been conducted in the US and the UK need to be replicated in other countries at different stages of development with their own economic and institutional contexts. Third, the interviews reveal that most investors in Pakistan are speculators who base their decisions on rumours instead of conducting sophisticated technical or financial analysis (Tijjani, 2008). Most of these speculators trade in securities by following the purchases and sales of a few large institutional investors; these large institutional investors may exploit their dominance in the market for their own gains. This manipulation can lead to stock market crises (such as the KSE crash of March, 2005). Therefore, regulators must consider these unsophisticated investors who dominate emerging market investment in Pakistan. Such investors need to be educated about the implications of items such as dividends for share prices.

Fourth, the use of a qualitative method (interviews) provides some interesting insights which were missing in the previous literature. These insights were based on the informal practices employed by company executives. For example, a financial director of a firm mentioned an alternative formula to decide upon the dividend payout ratio where the current figure should not be less than the prevailing banking interest rate. Such practices are unlikely

to be evidenced if only secondary, aggregated, data are employed. Finally, the research has deliberately examined the views of two major stakeholders about setters of dividend policy. The perceptions of the dividend policy setters (i.e. the company executives) were considered alongside the recipients of the dividend policy news (i.e. the investors). Such contrasting opinions make it beneficial for both the readers of this research. In terms of the use of mixed-methods research in the thesis, the clearest evidence of its ability to generate findings is that in three separate ways (the event study; investor and corporate views' regarding the inter-relations amongst signals; and firms' opinions about the drivers of dividend decision-making), the dominance of the earnings figure in Pakistan has emerged in a clear and unambiguous fashion.

7.4 Limitations

Although this thesis represents a systematic attempt to address the research questions posed at its beginning in a comprehensive manner, certain limitations remain. For instance, a number of findings of the study may not be totally generalisable as individuals from a very limited number (albeit targeted so as to be representative) of organisations were interviewed. Moreover, views of a fairly limited number of financial analysts were considered in the study. In addition, only a fraction of the interviews were taped because of the sensitivity of the individuals being interviewed. The unwillingness to be taped was compensated for by an attempt to make detailed notes during and immediately after each interview. However, the author recognises that this process may have introduced an element of subjectivity or bias into the analysis which might not be present in other studies. For example, important points being made by the interviewee may have been mis-remembered when it came to writing up the discussions. Further, cognitive biases may have led to the most vivid points being remembered when writing up notes (Kahneman and Tversky, 1981) to the exclusion of other

issues. Similarly, data for only 202 firms are included for the event study, over the relatively short period of 5 years (2005-09). The period, however, was selected on the basis of data availability from the KSE website. Before 2005, the data are only available in hard copy format in company stores and stock exchanges records; it was not possible for the researcher to get this data from those sources in the time scale available.

Another limitation is that the event study considers only cash dividend announcements and ignores stock dividend and contemporaneous stock and cash dividends. This exclusion of such announcements is a major limitation of the study; the share prices may behave differently when such events are included in a sample, as Akbar and Baig (2010) documented for their research. In addition, most of the modern literature in the US has focused on buyback as well as stock dividends (Long, 1978; Poterba, 1986; Grullon and Ikenberry, 2000; Rau and Vermealen, 2002). In a country like Pakistan where, at the time of the study, capital gains were not taxed, excluding stock dividends may have altered the findings. Again, however, it is hoped that by not focusing exclusively on the event study, the thesis emerge has allowed these issues to emerge.

It is also worth pointing out that it was not possible to obtain detailed and reliable evidence regarding the ownership structure of the sample firms for both the event study and interview methods. Some of the findings may therefore have been attributable to the fact that shares were closely-held by a small number of family members (Lukman, 2010). As such, it would not be surprising that the dividend did not signal new information since the news may have already been known by the insiders (Mollah, 2001). As discussed in the methodology section of the thesis given a lack of previous research in the area, the study was exploratory in nature and any policy implications therefore represent a by-product of the research. Arguably the study would have been produced more policy implications for government authorities by adopting a more normative research perspective.

In the case of the semi-structured interviews, the respondents may not have elaborated on the true picture of their organisations – they may have concealed negative facts and such concealment may have biased the analysis of the interviews. Finally, as noted elsewhere in the thesis, emerging stock markets behave differently from developed stock markets yet the study has used the same models being employed in the latter environment, such as Lintner's behavioural model of dividend policy. Nonetheless, in the absence of tailored developing nation frameworks this approach had to be adopted. There is therefore a continuing need to develop models appropriate for emerging market context.

7.5 Future Research

While acknowledging the limitations of the study, this thesis represents one of the most comprehensive studies regarding dividends in Pakistan to date. Moreover, it is among the first studies to study the behavioural aspect of dividend policy in an emerging context, especially as regards the determinants and signalling hypothesis. Therefore, this research should act as a stepping stone for future research in this area.

As discussed, the Pakistani market is featured by unique taxation system where capital gains were totally exempted from taxation during the sample period of the study and continued to be so until June 2010. Therefore, further research could be done to study the impact of the taxation change on dividend policy in Pakistan. The obvious form of this research to take would be of the nature suggested by Black and Scholes (1974) and Litzenberger and Ramaswamy (1982) and others, i.e. where the long-run relationship between (pre-tax) returns and dividends is investigated. Given the change in Pakistan tax system, a strong positive relationship would be expected prior to the imposition of capital gain tax in 2010. The literature shows that investors tend to prefer capital gains to dividends in cases where the dividend is relatively heavily taxed. The interview findings of this thesis

showed, however, that shareholders preferred cash dividends despite the tax disadvantages on capital gains counterpart (Long, 1978); therefore, it is expected that the imposition of taxation on capital gains will increase demand for cash dividend in Pakistan. This matter needs to be investigated in detail. Moreover, future research could be done on studying the relationship between ownership structure and dividend policy, as the Pakistani market continues to be dominated by family-owned businesses. A number of research studies have documented that ownership structure significantly affects the dividend decision process and, hence, impacts the value of the firms indirectly (Jensen and Meckling, 1976; Chen et al., 2005; Khan, 2005; Imam and Malik, 2007; Truong and Heaney, 2007).

Future research could achieve more generalisability by including a larger sample for the event study as well as a higher number of respondents in the interviews. Moreover, such research should be conducted in other emerging markets of the world, especially the South Asian countries, as it will bring comparability to the research. The conduct of research in other emerging markets will enhance the understanding of why these markets behave differently from developed markets. There is also a dire need for studying the behaviour of share prices around related announcements such as stock dividends, rights issues and the joint announcements of stock and cash dividends, as Zaman (2007) documented for his research for Pakistani firms. However, Zaman (2007) used a very tiny sample of only six listed firms; therefore, a large sample of miscellaneous announcements would facilitate a broader range of robust conclusions to be drawn. Further work ought to look at transactions by directors immediately before or after major announcements such as the disclosure of a dividend; as this issue was missing in the current study due to the unavailability of data.

APPENDIX 5

APPENDIX 5.1

APPENDIX 5.1 The Dividend Announcements Dates over the Period 2005-09

S. N0	Name	2005	2006	2007	2008	2009
1	ABBOTT LABS.(PAK.)	27-Jan-05	07-Feb-06	12-Feb-07	24-Jan-08	04-Feb-09
2	ADAMJEE INSURANCE	28-Feb-05	28-Feb-06	09-Mar-07	28-Mar-08	09-Mar-09
3	AGRIAUTO INDUSTRIES	27-Sep-05	20-Sep-06	29-Aug-07	25-Aug-08	15-Sep-09
4	AL ABID SILK	30-Sep-05	03-Oct-06	01-Oct-07	29-Sep-08	05-Oct-09
5	AL ZAMIN LEASING CORP.	NIL	NIL	NIL	03-Sep-08	NIL
6	AL-ABBAS CEMENT	23-Sep-05	NIL	NIL	NIL	NIL
7	AL-GHAZI TRACTORS	28-Jul-05	16-Feb-06	21-Feb-07	14-Feb-08	24-Feb-09
8	AL-KHAIR GADOON	04-Oct-05	NIL	01-Oct-07	29-Sep-08	NIL
9	AL-MAZEEN MUTUAL FUND	18-Feb-05	17-Aug-06	01-Aug-07	05-Aug-08	22-Oct-09
10	AL-NOOR MODARBA MAN.	13-Sep-05	25-Sep-06	26-Sep-07	16-Sep-08	NIL
11	AMERICAN LIFE INSURANCE	11-Apr-05	NIL	04-Apr-07	NIL	NIL
12	ARIF HABIB SECURITIES	29-Jul-05	01-Aug-06	NIL	31-Jul-08	NIL
13	ASKARI BANK	10-Feb-05	22-Feb-06	14-Feb-07	21-Feb-08	NIL
14	ASKARI LEASING	NIL	NIL	26-Sep-07	NIL	NIL
15	ATLAS HONDA	09-Sep-05	01-Sep-06	30-Aug-07	26-Aug-08	15-May-09
16	ATLAS INSURANCE	04-Mar-05	21-Feb-06	01-Mar-07	04-Mar-08	25-Mar-09
17	ATTOCK CEMENT PAKISTAN	12-Sep-05	29-Aug-06	12-Sep-07	01-Sep-08	20-Aug-09
18	ATTOCK REFINERY	NIL	NIL	11-Sep-07	09-Oct-08	NIL
19	AZGARD NINE	NIL	29-Mar-06	30-Apr-07	10-Mar-08	NIL
20	BALOCHISTAN GLASS	28-Sep-05	NIL	NIL	NIL	NIL
21	BANK AL HABIB	nil	16-Feb-06	21-Feb-07	21-Feb-08	25-Feb-09
22	BANK AL-FALAH LIMITED	14-Mar-05	NIL	NIL	25-Feb-08	NIL
23	BANNU WOOLLEN	11-Jan-05	NIL	NIL	NIL	NIL
24	BATA PAKISTAN	17-Feb-05	06-Apr-06	22-Feb-07	20-Feb-08	25-Feb-09
25	BESTWAY CEMENT	03-Oct-05	03-Oct-06	NIL	NIL	NIL
26	BHANERO TEXTILE MILLS	no	09-Oct-06	27-Sep-07	22-Sep-08	25-Sep-09

27	BOC PAKISTAN	25-Nov-05	11-May-06	22-Feb-07	25-Feb-08	27-Feb-09
28	BOLAN CASTINGS	19-Sep-05	21-Sep-06	10-Sep-07	NIL	NIL
29	BOSICOR PAKISTAN	03-Oct-05	28-Sep-06	NIL	NIL	NIL
30	CAPITAL ASSETS LSG.	28-Sep-05	NIL	NIL	NIL	NIL
31	CENTRAL INSURANCE	28-Mar-05	27-Mar-06	19-Mar-07	22-Feb-08	12-Mar-09
32	CENTURY INSURANCE CO.	29-Mar-05	24-Mar-06	06-Mar-07	NIL	NIL
33	CENTURY PAPER	25-Jul-05	25-Jul-06	NIL	NIL	NIL
34	CHEARAT CEMENT COMPANY	15-Sep-05	15-Sep-06	27-Sep-07	NIL	NIL
35	CLARIANT PAKISTAN	25-Jan-05	30-Jan-06	31-Jan-07	06-Feb-08	29-Jan-09
36	COLGATE PALMOLIVE PAK.	19-Aug-05	17-Aug-06	17-Aug-07	19-Aug-08	31-Jul-09
37	CRESCENT STEEL	01-Aug-05	NIL	31-Jul-07		NIL
38	CRESCENT TEXTILE MILLS	03-Mar-05	NIL	NIL	NIL	NIL
39	DADABHOY CEMENT	16-Sep-05	NIL	NIL	NIL	NIL
40	DADEX ETERNIT	26-Sep-05	21-Sep-06	24-Sep-07	11-Sep-08	NIL
41	DANDOT CEMENT	04-Oct-05	Nil	NIL	NIL	NIL
42	DAWOOD HERCULES CHEMS.	22-Mar-05	31-Jan-06	17-Jan-07	28-Jan-08	19-Feb-09
43	DEWAN AUTV.ENGR.	11/10/2005	NIL	NIL	NIL	NIL
44	DEWAN CEMENT	nil	02-Oct-06	NIL	NIL	NIL
45	DEWAN FAROOQUE MOTORS	10-Oct-05	09-Oct-06	NIL	NIL	NIL
46	DEWAN KHALID TEX.	11-Oct-05	NIL	NIL	NIL	NIL
47	DEWAN MUSHTAQ TEX.	11-Oct-05	NIL	NIL	NIL	NIL
48	DEWAN SUGAR	10-Jan-05	06/01/2006	NIL	NIL	NIL
49	DEWAN TEXTILE MILLS	11-Oct-05	NIL	NIL	NIL	NIL
50	DG KHAN CEMENT COMPANY	19-Sep-05	19-Sep-06	19-Sep-07	NIL	NIL
51	DREAMWORLD	03-Oct-05	27-Sep-06	NIL	NIL	02-Oct-09
52	EAST WEST INSURANCE	NIL	NIL	09-Mar-07	04-Mar-08	NIL
53	EFU GENERAL INSURANCE	29-Mar-05	20-Mar-06	26-Mar-07	31-Mar-08	24-Mar-09
54	EFU LIFE ASSURANCE	29-Mar-05	20-Mar-06	26-Mar-07	27-Feb-08	24-Mar-09
55	ENGLISH LEASING	11/10/2005	NIL	NIL	NIL	NIL

56	ENGRO CHEMICAL	10-Feb-05	31-Jan-06	22-Jan-07	20-Feb-08	21-Jan-09
57	ESCORTS INVESTMENT BANK	19/04/2005	18-Sep-06	02-Oct-07	21-Aug-08	NIL
58	FAISAL SPINNING MILLS	03-Oct-05	09-Oct-06	27-Sep-07	22-Sep-08	25-Sep-09
59	FATEH TEXTILE MILLS	29-Sep-05	28-Sep-06	28-Sep-07	29-Sep-08	28-Sep-09
60	FAUJI CEMENT COMPANY	07/09/2005	03-Oct-06	NIL	NIL	NIL
61	FAUJI FERTILIZER	31-Jan-05	31-Jan-06	26-Jan-07	31-Jan-08	30-Jan-09
62	FAUJI FTLZ.BIN QASIM	25-Jan-05	26-Jan-06	24-Jan-07	24-Jan-08	20-Jan-09
63	FAYSAL BANK	23-Feb-05	24-Feb-06	26-Feb-07	22-Feb-08	NIL
64	FAZAL TEXTILE MILLS	14-Sep-05	05-Oct-06	NIL	18-Sep-08	25-Sep-09
65	FECTO CEMENT	26-Sep-05	22-Sep-06	NIL	NIL	NIL
66	FEROZSONS LAB	30-Aug-05	01-Sep-06	29-Aug-07	01-Sep-08	18-Aug-09
67	FIRST HABIB MODARABA	14-Sep-05	21-Sep-06	25-Sep-07	12-Sep-08	07-Aug-09
68	FIRST IBL MODARABA	30-Sep-05	31-Oct-06	09-Oct-07	14-Oct-08	NIL
69	FIRST TRISTAR MOD	23-Sep-05	NIL	NIL	NIL	09-Oct-09
70	GADOON TEXTILE	05-Sep-05	04-Oct-06	10-Sep-07	NIL	NIL
71	GAMMON PAKISTAN	11/10/2005	NIL	NIL	NIL	NIL
72	GATRON INDUSTRIES	22-Aug-05	25-Sep-06	10-Sep-07	15-Sep-08	21-Oct-09
73	GENERAL TYRE & RUBBER	31-Aug-05	30-Aug-06	NIL	NIL	NIL
74	GHANI GLASS	04-Oct-05	28-Sep-06	28-Sep-07	07-Oct-08	29-Sep-09
75	GHARIBWAL CEMENT	28-Sep-05	02-Oct-06	NIL	NIL	NIL
76	GILLETTE PAKISTAN	10-Feb-05	01/03/2006	NIL	15-Aug-08	NIL
77	GLAXOSMITHKLINE PAK.	21-Mar-05	28-Feb-06	26-Feb-07	22-Feb-08	23-Feb-09
78	GUL AHMED TEXTILE MILLS		NIL	NIL	30-Sep-08	NIL
79	GULISTAN SPNG.MILLS	06-Jan-05	NIL	NIL	NIL	NIL
80	HABIB ADM LIMITED	19-Aug-05	05-Sep-06	10-Sep-07	17-Sep-08	NIL
81	HABIB METROPOLITAN BANK	NIL	NIL	NIL	04-Mar-08	07-Oct-09
82	HABIB SUGAR	28-Dec-05	20-Dec-06	19-Dec-07	24-Dec-08	16-Dec-09
83	HALA ENTERPRISES	11-Jan-05	NIL	NIL	NIL	NIL
84	HASHMI CAN	28-Sep-05	NIL	NIL	NIL	NIL

85	HINOPAK MOTORS	25-Mar-05	14-Mar-06	26-Feb-07	11-Feb-08	30-Apr-09
86	HONDA ATLAS CARS(PAK.)	05-May-05	NIL	NIL	NIL	NIL
87	HUB POWER COMPANY	03-Mar-05	10-Aug-06	05-Sep-07	05-Aug-08	12-Aug-09
88	HUFFAZ SEAMLESS PIPE	11-Oct-05	09-Oct-06	04-Oct-07	NIL	NIL
89	IBRAHIM FIBRES	NIL	NIL	NIL	08-Sep-08	NIL
90	ICI PAKISTAN	25-Feb-05	02-Mar-06	28-Feb-07	14-Feb-08	18-Feb-09
91	IDEAL SPINNING	29/09/2005	NIL	18-Sep-07	NIL	NIL
92	INDUS MOTOR COMPANY	16-Sep-05	31-Aug-06	31-Aug-07	19-Aug-08	29-Sep-09
93	INTER ASIA LEASING	12-Oct-05	NIL	NIL		NO
94	INTERNATIONAL INDS.	28-Jul-05	27-Jul-06	26-Jul-07	28-Jul-08	23-Jul-09
95	INTL.GENERAL INSURANCE	23-Feb-05	27-Feb-06	05-Mar-07	15-Feb-08	16-Feb-09
96	J K SPINNING MILLS	10/01/2005	NIL	09-Oct-07	NIL	NIL
97	J O V&CO		NIL	17-Sep-07	NIL	NIL
98	JAHANGIR SIDDIQUI & CO.	19-Sep-05	14-Sep-06	13-Aug-07	NIL	26-Oct-09
99	JAPAN POWER GENERATION	28/09/2005	NIL	NIL	NIL	NIL
100	JAVEDAN CEMENT	NIL	25-Sep-06	NIL	NIL	NIL
101	JDW SUGAR MILLS	10-Jan-05	11-Dec-06	NIL	NIL	09-Jan-09
102	JS VALUE FUND	29-Aug-05	31-Jul-06	28-May-07	24-Oct-08	23-Oct-09
103	KARACHI ELECTRIC SUPP.	02/11/2005	NIL	NIL	NIL	NIL
104	KARAM CERAMICS	16-Sep-05	NIL	11-Sep-07	29-Sep-08	NIL
105	KASB MODARABA	26/09/2005	NIL	26-Sep-07	NIL	NIL
106	KHALID SIRAJ TEXTILES	30/09/2005	NIL	NIL	NIL	NIL
107	KOHINOOR ENERGY	08-Sep-05	29-Jun-06	01-Oct-07	22-Sep-08	16-Sep-09
108	KOHINOOR MILLS	No	No	11-Sep-07	NIL	NIL
109	KOHINOOR SPINNING MILLS	10/01/2005	10-Oct-06	NIL	NIL	NIL
110	LAFARGE PAKISTAN CEMENT	27/09/2005	NIL	NIL	NIL	NIL
111	LAKSON TOBACCO	15-Aug-05	31-Jul-06	31-Jul-07	07-Apr-08	29-Jan-09
112	LIBERTY MILLS	21-Sep-05	22-Sep-06	28-Sep-07	07-Oct-08	16-Sep-09
113	LUCKY CEMENT	29/08/2005	11-Sep-06	31-Jul-07	NIL	05-Aug-09

114	MANDVIWALA MAUSER		11-Oct-06	NIL	NIL	NIL
115	MAPLE LEAF CMT.FACTORY	21-Sep-05	NIL	NIL	NIL	NIL
116	MARI GAS	24-Feb-05	22-Feb-06	22-Feb-07	19-Feb-08	23-Feb-09
117	MCB BANK	29-Apr-05	24-Feb-06	23-Feb-07	15-Feb-08	16-Feb-09
118	MEHMOOD TEXTILE	04-Oct-05	04-Oct-06	04-Oct-07	06-Oct-08	05-Oct-09
119	MILLAT TRACTORS	20-Sep-05	21-Sep-06	10-Sep-07	25-Sep-08	17-Sep-09
120	MIRPURKHAS SUGAR	21-Dec-05	19-Dec-06	NIL	24-Dec-08	17-Dec-09
121	MODARBA AL-MAL	27-Sep-05	26-Sep-06	NIL	28-Aug-08	NIL
122	MURREE BREWERY COMPANY	Nil	26-Sep-06	01-Oct-07	29-Sep-08	05-Oct-09
123	MUSTEHKAM CEMENT	04-Aug-05	NIL	NIL	NIL	NIL
124	MYBANK	07-Mar-05	02-Mar-06	NIL	NIL	NIL
125	NAKSHBANDI INDUSTRIES	28/09/2005	NIL	NIL	NIL	NIL
126	NAT.BANK OF PAKISTAN	18-Mar-05	20-Mar-06	26-Feb-07	29-Feb-08	18-Mar-09
127	NATIONAL REFINERY	05-Sep-05	17-Aug-06	17-Aug-07	01-Sep-08	20-Aug-09
128	NESTLE PAKISTAN	08-Mar-05	06-Mar-06	05-Mar-07	07-Feb-08	09-Feb-09
129	NEW JUBILEE INSURANCE	30-Mar-05	24-Mar-06	20-Mar-07	26-Feb-08	11-Mar-09
130	NEW JUBILEE LIFE IN.	22/03/2005	22-Mar-06	NIL	27-Feb-08	NIL
131	NIB BANK	01/03/2005	28/02/2006	NIL	NIL	NIL
132	NIMIR INDUSTRY CHEM	23/09/2005	NIL	NIL	NIL	NIL
133	NISHAT (CHUNIAN)	05-Oct-05	05-Oct-06	08-Oct-07	NIL	NIL
134	NISHAT MILLS	19-Sep-05	18-Sep-06	20-Aug-07	27-Aug-08	25-Aug-09
135	NOON SUGAR MILLS	22-Dec-05	NIL	NIL	NIL	30-Dec-09
136	OIL & GAS DEVELOPMENT	19-Sep-05	15-Aug-06	22-Aug-07	20-Aug-08	13-Aug-09
137	ORIX LEASING PAK.	17-Aug-05	11-Sep-06	24-Sep-07	17-Sep-08	NIL
138	OTSUKA PAKISTAN	19-Aug-05	19-Sep-06	18-Sep-07	26-Aug-08	01-Sep-09
139	PACKAGES	25-Jan-05	06-Feb-06	07-Feb-07	NIL	NIL
140	PAK ELEKTRON	07-Oct-05	NIL	NIL	NIL	NIL
141	PAK GULF LEASING	28/09/2005	NIL	NIL	NIL	02-Nov-09
142	PAK SUZUKI MOTOR	Nil	27-Mar-06	NIL	28-Feb-08	04-Mar-09

143	PAKISTAN ENGINEERING	28/09/2005	25-Sep-06	22-Oct-07	NIL	05-Oct-09
144	PAKISTAN HOTELS DVPR.	06-Sep-05	29-Sep-06	29-Aug-07	09-Jul-08	NIL
145	PAKISTAN REINSURANCE	22-Mar-05	22-Mar-06	29-Mar-07	NIL	07-May-09
146	PAKISTAN INTL.AIRLINES	04/04/2005	03/04/2006	NIL	NIL	NIL
147	PAKISTAN INTL.CTNR.TERM.	05/09/2005	30/08/2006	NIL	19-Aug-08	11-Sep-09
148	PAKISTAN NAT.SHIP.	15-Sep-05	18-Sep-06	29-Oct-07	16-Sep-08	17-Sep-09
149	PAKISTAN OILFIELDS	12-Sep-05	29-Aug-06	11-Sep-07	09-Oct-08	01-Oct-09
150	PAKISTAN PETROLEUM	29-Aug-05	17-Aug-06	10-Aug-07	19-Dec-08	24-Aug-09
151	PAKISTAN PTA	24-Feb-05	01-Mar-06	NIL	NIL	NIL
152	PAKISTAN REFINERY	25-Aug-05	NIL	27-Aug-07	21-Aug-08	NIL
153	PAKISTAN SERVICES	29-Apr-05	15-Aug-06	31-Jul-07	10-Sep-08	NIL
154	PAKISTAN STATE OIL	28-Jul-05	03-Aug-06	07-Aug-07	12-Aug-08	
155	PAKISTAN SYNTHETICS	03-Oct-05	25-Sep-06	NIL	NIL	29-Sep-09
156	PAKISTAN TELECM.	27-Sep-05	14-Sep-06	14-Sep-07	NIL	
157	PAKISTAN TOBACCO	01-Mar-05	08-Mar-06	07-Mar-07	20-Feb-08	24-Mar-09
158	PARAMOUNT SPNG.MLS.	05-Jan-05	NIL	NIL	NIL	NIL
159	PICIC GROWTH FUND	21-Jul-05	31-Jul-06	18-Jul-07	29-Jul-08	16-Oct-09
160	PICIC INVESTMENT FD.	21-Jul-05	31-Jul-06	18-Jul-07	15-Feb-08	16-Oct-09
161	PIONEER CEMENT	NIL	02-Oct-06	NIL	NIL	NIL
162	QLTY TEXTILE MILLS	08-Sep-05	19-Sep-06	NIL	NIL	NIL
163	RUPALI POLYESTER	19-Sep-05	15-Sep-06	11-Sep-07	25-Sep-08	17-Sep-09
164	S G FIBRES	04/10/2005	NIL	NIL	NIL	NIL
165	SAIF TEXTILE MILLS	04-Jan-05	09-Oct-06	NIL	NIL	NIL
166	SAMBA BANK	07/03/2005	NIL	NIL	NIL	NIL
167	SAMIN TEXTILE MILLS	29/09/2005	NIL	NIL	22-Feb-08	NIL
168	SANA INDUSTRIES	19-Aug-05	23-Aug-06	NIL	09-Sep-08	01-Sep-09
169	SANOFI AVENTIS PAKISTAN	27-Jan-05	30-Jan-06	NIL	13-Feb-08	13-Feb-09
170	SAPPHIRE FIBRES	10-Jan-05	09-Oct-06	09-Oct-07	09-Oct-08	NIL
171	SAPPHIRE TEX.MLS.	10-Jan-05	09-Oct-06	09-Oct-07	09-Oct-08	09-Oct-09

172	SEARLE PAKISTAN	12-Oct-05	29-Sep-06	08-Oct-07	19-Sep-08	02-Oct-09
173	SECURITY INVESTMENT BANK	24/03/2005	29-Mar-06	02-Apr-07	NIL	NIL
174	SECURITY PAPER	29-Jul-05	31-Jul-06	31-Jul-07	20-Aug-08	30-Jul-09
175	SERVICE INDUSTRIES	05-Apr-05	03-Apr-06	02-Apr-07	06-Mar-08	02-Apr-09
176	SHABIR TILES	14-Sep-05	11-Sep-06	NIL	NIL	NIL
177	SHAFFI CHEMICAL	NIL	NIL	08-Oct-07	NIL	NIL
178	SHAHEEN INSURANCE	08/04/2005	NIL	NIL	NIL	NIL
179	SHAHTAJ SUGAR MILLS	23-Dec-05	22-Dec-06	06-Dec-07	31-Dec-08	31-Dec-09
180	SHAKARGANJ MILLS	NIL	NIL	05-Dec-07	NIL	NIL
181	SHELL PAKISTAN	04-Aug-05	07-Aug-06	06-Aug-07	12-Aug-08	19-Aug-09
182	SIEMENS ENGINEERING	22-Nov-05	27-Jan-06	16-Nov-07	03-Nov-08	30-Oct-09
183	SILKBANK	16/03/2005	NIL	NIL	NIL	NIL
184	SITARA CHEMICAL	04-Oct-05	02-Oct-06	06-Sep-07	06-Oct-08	29-Sep-09
185	SOUTHERN ELECTRIC POWER	04/10/2005	NIL	NIL	NIL	NIL
186	STANDARD CHT.MODARABA	05-Sep-05	20-Sep-06	12-Sep-07	29-Sep-08	28-Sep-09
187	SUI NORTHERN GAS	30-Sep-05	02-Oct-06	25-Sep-07	29-Sep-08	NIL
188	SUI SOUTHERN GAS	29-Sep-05	02-Oct-06	28-Sep-07	29-Sep-08	NIL
189	SUNSHINE COTTON MLS.	28-Sep-05	22-Sep-06	12-Sep-07	07-Oct-08	05-Oct-09
190	TAJ TEXTILE MILLS	06/10/2005	NIL	NIL	NIL	NIL
191	TELECARD	17/10/2005	NIL	NIL	NIL	NIL
192	THAL Industries	28-Dec-05	28-Dec-06	28-Nov-07	26-Dec-08	30-Dec-09
193	THE RYL.BK.OF SCTL.	22-Feb-05	NIL	NIL	NIL	NIL
194	TRI-PACK FILMS	27-Jan-05	30-Jan-06	06-Feb-07	14-Feb-08	11-Feb-09
195	TRI-STAR POLYESTER	No	11/08/2006	NIL	NIL	12-Feb-09
196	TRUST INVESTMENT BANK	No	No	08-Oct-07	NIL	NIL
197	TRUST MODARABA	29-Sep-05	NIL	NIL	NIL	NIL
198	UNICAP MODARBA CHT.	09-Sep-05	NIL	NIL	NIL	NIL
199	UNILEVER PAKISTAN	03-Mar-05	31-Jan-06	26-Jan-07	12-Feb-08	06-Feb-09
200	UNILEVER PAKISTAN FOODS	04-Mar-05	28-Jul-06	16-Feb-07	14-Feb-08	06-Feb-09

201	WYETH PAKISTAN	21-Mar-05	20-Mar-06	16-Mar-07	29-Feb-08	27-Mar-09
202	ZEAL PAKISTAN CEMENT	11/10/2005	NIL	NIL	NIL	NIL

APPENDIX 5.2

Regression Analysis for Interaction using AR_{t-2} as Dependent Variable

Explanatory Variables	Equation [4.9]	Equation [4.10]
Constant	0.00331 (0.003)*	- 0.00115 (0.688)
% DPS	- 0.000426 (0.379)	- 0.000297 (0.555)
% EPS	- 0.000075 (0.907)	- 0.000405 (0.553)
DIEI		0.00597 (0.099)
DIED		- 0.00146 (0.752)
DIEnC		0.00133 (0.843)
DDEI		0.00590 (0.142)
DDEnC		0.0136 (0.027)*
DnCEI		0.00329 (0.487)
DnCED		0.00650 (0.172)
DnCEnC		0.0111 (0.067)
N	531	531
F-Statistics	0.40 (0.668)	
R^2	0.2	2.2
R^2 (Adjusted)	0.0	0.3
F-Statistics "1st order"		0.37
F-Statistics "Interaction"		1.37

Note: An * indicates significance at the 5% level. The figures in parenthesis are p-values. The degree of freedom for 'first-order' F-statistic is (2, 531) and the degree of freedom for 'interaction' F-statistic is (8, 531).

APPENDIX 5.3

Regression Analysis for Interaction using $CAR_{t-2\ to\ t+2}$ as Dependent Variable

Explanatory Variables	Equation [4.9]	Equation [4.10]
Constant	0.0102 (0.118)	- 0.0172 (0.305)
% DPS	- 0.00115 (0.683)	- 0.00053 (0.856)
% EPS	0.00051 (0.891)	- 0.00178 (0.653)
DIEI		0.0349 (0.097)
DIED		0.0076 (0.777)
DIEnC		0.0042 (0.914)
DDEI		0.0574 (0.014)*
DDEnC		0.0696 (0.052)
DnCEI		0.0054 (0.844)
DnCED		0.0176 (0.525)
DnCEnC		0.0557 (0.113)
N	531	531
F-Statistics	0.09 (0.914)	
R^2	0.0	2.2
R^2 (Adjusted)	0.0	0.4
F-Statistics "1st order"		0.12
F-Statistics "Interaction"		1.46

Note: An * indicates significance at the 5% level. The figures in parenthesis are p-values. The degree of freedom for 'first-order' F-statistic is (2, 531) and the degree of freedom for 'interaction' F-statistic is (8, 531).

APPENDIX 5.4

Regression Analysis for Interaction using $CAR_{t-10\ to\ t+10}$ as Dependent Variable

Explanatory Variables	Equation [4.9]	Equation [4.10]
Constant	0.0452 (0.095)	- 0.0226 (0.747)
% DPS	- 0.0083 (0.480)	- 0.0046 (0.709)
% EPS	- 0.0035 (0.822)	- 0.0117 (0.478)
DIEI		0.0698 (0.427)
DIED		0.012 (0.916)
DIEnC		- 0.043 (0.793)
DDEI		0.229 (0.019)*
DDEnC		0.130 (0.384)
DnCEI		0.023 (0.838)
DnCED		0.024 (0.838)
DnCEnC		0.057 (0.698)
N	531	531
F-Statistics	0.29 (0.750)	
R^2	0.1	1.7
R^2 (Adjusted)	0.0	0.0
F-Statistics "1st order"		1.38
F-Statistics "Interaction"		1.05

Note: An * indicates significance at the 5% level. The figures in parenthesis are p-values. The degree of freedom for 'first-order' F-statistic is (2, 531) and the degree of freedom for 'interaction' F-statistic is (8, 531).

APPENDIX 6

APPENDIX 6.1

AUTHORITY LETTER

UNIVERSITY OF DUNDEE

School of Accounting & Finance

25th March 2010

To Whom It May Concern:

Re: Mr Naimat Khan

We are writing on behalf of Mr Naimat Khan, a PhD student in the School of Accounting & Finance at the University of Dundee, Scotland, UK. As part of the research for his thesis on dividends in Pakistan, Mr Khan is hoping to conduct interviews with various individuals and organisations to examine views about the nature and implication of dividend decisions. We would therefore be extremely grateful if you would allow Mr Khan to interview you for his work and help facilitate what we believe to be an important study in the area.

If you require any further information please do not hesitate to contact us.

Dr. Bruce Burton,
Senior Lecturer in Finance,
School of Accounting & Finance,
University of Dundee,
Dundee,
Scotland, UK.
E-mail: b.m.burton@dundee.ac.uk

Professor David Power,
Professor of Business Finance,
School of Accounting & Finance,
University of Dundee,
Dundee,
Scotland, UK
E-mail: d.m.power@dundee.ac.uk

APPENDIX 6.2

COVER LETTER

My name is Naimat Ullah Khan, a faculty member/ PhD scholar at the University of Peshawar. I am studying for a PhD in finance at the University of Dundee in the UK. My research focuses on how Pakistani companies decide their dividend policy. As part of my degree, I am conducting interviews with finance directors/ analysts and have selected your company from those listed on the Karachi Stock Exchange. Any valuable comments that you might have regarding how your firm sets its dividend will enable me to draw conclusions about the dividend policy decision for all Pakistani firms.

I want to assure you that the interview will not require any theoretical or academic understanding on your past. It is only concerned with the practices which prevailed in your company regarding dividend policy. Moreover, I want to assure that the company will not be labelled and analyzed individually in order to keep its confidentiality.

Kind Regards!!

Naimat ullah khan

PhD Student

University of Dundee, UK.

E-mail: naimatims@yahoo.com
n.u.z.khan@dundee.ac.uk
Mobile: 03339285084
Telephone: 0928612144

APPENDIX 6.3

SEMI-STRUCTURED QUESTIONNAIRE ON THE DIVIDEND DECISIONS OF PAKISTANI COMPANIES

I. GENERAL INFORMATION ABOUT THE INTERVIEWEE AND ORGANISATIONS

1. Name (optional): .....
2. Job designation: .....
3. Qualification (s).....
4. Experience: .....
5. Age: .....
6. Company Name: .....
7. Industry: .....
8. Listing on exchanges other than the Karachi Stock Exchange (Local or foreign).....

II. DETERMINANTS OF DIVIDEND POLICY

1. Does your company pay dividend or not? If yes: Does it pay annually, semi-annually, or quarterly……
2. Is the dividend decision taken by board of directors? If not, who? .....
3. Does the Board of Directors decide on the amount of dividend or set the dividend per share (DPS)? .....
4. Which of the following influence on the dividend decision? How do they influence this decision?
    a) Current year's earnings.....
    b) Last year's earnings.....
    c) Last year's dividend.....

d) Share price.....

e) Current liquidity/ Cash flow.....

f) Taxation on dividend.....

g) Industry behaviour.....

h) Any others: …….....

5. Which of the above is the main influence? .....
6. Do the third parties (Govt, financial institutions, tax department etc.) have any influence upon the dividend policy of your company? .....
7. Does your company consider shareholders preferences regarding dividends? .....
8. Is the dividend based on the last year's dividend plus a percentage increase? .....

III. PAYOUT RATIO

1. Does your company have a target dividend payout ratio? .....
2. Does your company revise this ratio frequently or does the one payout ratio continue for several periods? .....
3. Does your company gradually increase the actual payout ratio to achieve the target payout over a period of years? .....
4. Does the company's dividend policy fluctuate with the firm's change in investment and financing needs? .....
5. Is the dividend decision a residual after investment needs have been determined? OR do managers attach more importance to investment than to dividend? .....

6. Does the company try to avoid changes in dividend which can be reversed in a year or so? .....

IV. MARKET SIGNAL

1. Does your company make its dividend and earning announcements simultaneously? .....
2. Does dividend news leak to the market in Pakistan prior to formal announcements from companies? If so, how and when? .....
3. Do these announcements convey separate information? Which is the dominant signal? .....
4. Does the dividend announcement convey a signal about the future earnings prospects of a firm? .....
5. Does an increase in dividend usually lead to a rise in share prices? .....
6. Is a dividend cut perceived as 'bad news' which in turn leads to a decrease in share prices?.....
7. Is the positive impact on share prices due to increase in dividend is less than any negative on share prices due to dividend cut? .....
8. Any other comments:

   .....

   .....

APPENDIX 6.4

1. **GENERAL INFORMATION ABOUT THE INTERVIEWEE AND ORGANIZATIO**

I. Name (optional): .....

II. Job designation: .....

III. Qualification (s).....

IV. Experience: .....

V. Age: .....

VI. Company Name: .....

2. **MARKET SIGNAL**

I. Does your company make its dividend and earning announcements simultaneously?

.....

II. Does dividend news leak to the market in Pakistan prior to formal announcements from companies? If so, how and when?.....

III. Do the dividend and earning announcements convey separate information? Which is the dominant signal? .....

IV. Does the dividend announcement convey a signal about the future earnings prospects of a firm? .....

V. Does an increase in dividend usually lead to a rise in share prices?

.....

VI. Is a dividend cut perceived as 'bad news' which in turn leads to a decrease in share prices?.....

VII. Is the positive impact on share prices due to increase in dividend is less than any negative on share prices due to dividend cut? .....

VIII. Any other comments:

.....

BIBLIOGRAPHY

Abeyratna, G., A. (1994), "An empirical Investigation of UK Stock Market Reaction to Dividend Announcements in a Complex Signalling Setting", Unpublished PhD Thesis, School of Accounting and Finance, University of Dundee, UK.

Adaoglu, C. (2000), "Instability in the Dividend Policy of the Istanbul Stock Exchange (ISE) Corporations: Evidence from an Emerging Market", Emerging Markets Review, Volume 1, Issue 3, 11 November, Pages 252-270

Afza, T. and Mirza, H.H. (2010), "Ownership structure and cash flows as determinants of corporate dividend policy in Pakistan", International Business Research, Vol. 3 No. 3, pp. 210-221.

Aharony, J. and 1. Swary (1980), "Quarterly Dividend and Earning Announcements and Stockholders' Returns: An Empirical Analysis", Journal of Finance 35, pp. 1- 12.

Ahmed, H. and Javid, A.Y. (2009), "The Determinants of Dividend Policy in Pakistan", International Research Journal of Finance and Economics, Vol. 29 pp.110-125.

Akbar, M. and Baig, H. H. (2010), "Reaction of Stock Prices to Dividend Announcements and Market Efficiency in Pakistan" The Lahore Journal of Economics15 : 1 (Summer): pp. 103-125

Akhtar R. (1989), "Pakistan yearbook 1989-90", 17th Edition, East & West publishing the Company, Lahore, Pakistan.

Akhtar S. (2007), "Pakistan – Banking Sector Reforms: performance and Challenges", Lecture at The Graduate Institute of International Studies, Geneva

Al-Abdulqader, K.A. (2003), "Share Valuation and Stock Market Efficiency in the Saudi Stock Market", Unpublished PhD Thesis, School of Accounting and Finance, University of Dundee, UK.

Al-Kuwari, D. (2009), "Determinants of the Dividend Policy in Emerging Stock Exchanges: The Case of GCC Countries", Global Economy & Finance Journal Vol. 2 No. 2 September 2009. Pp. 38-63

Al-Najjar, B. (2011), "The Inter-Relationship between Capital Structure and Dividend Policy: Empirical Evidence from Jordanian data", International Review of Applied Economics, 25 (2). pp. 209-224. ISSN 0269-2171

Ali, S. And Akbar, M. (2009), "Calendar Effects in Pakistani Stock Market", International Review of Business Research, Vol. 5 No. 1, Pp. 389- 404

Ali, S. S. and Mustafa K. (2001), "Testing Semi-strong Form Efficiency of Stock Market", The Pakistan Development Review, 40: 4 Part II (Winter) pp. 651–674

Almujamed, H.I. (2011), "Technical Analysis in the Kuwait Stock Exchange", Unpublished PhD Dissertation, School of Business, University of Dundee, UK.

Annual Reports(2004-2009), "The Karachi Stock Exchange: Karachi, Pakistan

Annual Reports (2004-2009), "The Lahore Stock Exchange: Lahore, Pakistan

Annual Reports (2004-2009), "The Lahore Stock Exchange: Lahore, Pakistan

Arby, M. F. (2004), "State Bank of Pakistan- Evolution, Functions, and Organization" State Bank of Pakistan

Azhagaiah, R., and Priya, S.N. (2008), "The impact of Dividend Policy on Shareholders' Wealth", International Research Journal of Finance and Economics, Issue, 20.

Baker, H.K. and Powell, G.E. (1999), "How corporate managers view dividend policy", Quarterly Journal of Business and Economics, Vol. 38 No.2, pp.17-35.

Baker, H.K., Farrelly, G.E. and Edelman, R.B. (1985), "A survey of management views on dividend policy", Financial Management, Vol. 14 No. 3, pp. 78-84.

Ball, R, Kothari. S (1989), "Non-Stationary Expected Returns: Implications for Tests of Market Efficiency and Serial Correlation of Returns", Journal of Financial Economics 25, 51-74

Ball, R. and R. Watts (1972), "Some Time Series Properties of Accounting Income Numbers", Journal of Finance 38.

Belanes, M., Nacelur, B.S and Goaid, M, (2007), "On the determinants and Dynamics of Dividend policy", Journal of international review of finance, International Research Journal of Finance and Economics - Issue 25 (2009)

Bell, L. and Jenkinson, T. (2002), "New evidence of the impact of dividend taxation and on the identity of the marginal investor", Journal of Finance, Vol. 57 No. 3, pp. 1321-1346.

Bhattacharya, S. (1979), "Imperfect information, dividend policy and the bird-in-the-hand fallacy", Bell Journal of Economics, Vol. 10 No. 1, pp. 259-70.

Bhattacharya, S. (1980), "Non dissipative Signaling Structures and Dividend Policy", The quarterly journal of Economics. Vol. 95, pp. 1-24.

Bhutto, B. (2008), "Reconciliation- Islam, Democracy and the West", Simon and Schuster UK Ltd.

Black, F. (1976), "The dividend puzzle", Journal of Portfolio Management, Vol. 2 No. 1, pp. 1-22.

Black, F. and M. S. Scholes, (1974), "The Effect of Dividend Yield and Dividend Policy on Common Stock Prices and Returns", Journal of Financial Economics 1, pp. 1-22.

Black, F. and Scholes, M. (1974), “The effects of dividend yield and dividend policy on common stock prices and returns”, Journal of Financial Economics, Vol. 1 No. 1, pp. 1-22.

Blalock, H. M. (1984), “Contextual-effects models: Theoretical and methodological issues”, Annual Review of Sociology, 10, pp. 353–372.

Blood, P. R. (1994), “Pakistan: A Country Study” 6th Edition, Washington, D.C. : Library of Congress

Brav, A., Graham, J.R., Harvey, C.R. and Michaely, R. (2005), "Payout policy in the 21st century", Journal of Financial Economics, Vol. 77 No.3, pp.483-527.

Brealey, R. A., Myers, S. C., and Marcus, A. J. (2008), “Fundamentals of Corporate Finance” Sixth Edition, McGraw-Hill Publisher

Brittain, J. A. (1966), "Corporate Dividend Policy", Washington, D. C.: The Brooking Institution.

Brown, K., Harlow, W. and Tinic, S. (1993), “The Risk and Required Return of Common Stock Following Major Price Innovations,” Journal of Financial and Quantitative Analysis 28, pp. 101-116.

Brown, S., and J. Warner (1980), "Measuring Security Price Performance ", Journal of Financial Economics 8, pp. 205-258.

Brown, S., and J. Warner (1985), "Using Daily Stock Returns: The Case of Event Studies", Journal of Financial Economics 13, pp. 3-3 1.

Bryman, A. (1988), "Quantity and Quality in Social Science Research ", Contemporary Social Research: 18, Series Editor: Martin Bulmer, Routledge: London and New York.

Bryman, A. (2004), “Social Research Methods”, Oxford University Press.

Burrell, G. and G. Morgan (1979), "Sociological Paradigms and Organizational Analysis ", Heinemann: London

Chan, K. (1988), “On the Contrarian Investment Strategy”, Journal of Business 61, 147-163
Chandio R. A. (2006), “Economic Growth, Financial Liberalisation and Poverty Reduction of Pakistan (1970-2000)” Unpublished PhD Dissertation, School of Economics, Kingston University, London

Chaudhry, I.S. and Munir, F. (2010), “Determinants of Low Tax Revenue in Pakistan”, Pakistan Journal of Social Sciences (PJSS) Vol. 30, No. 2 (December 2010), pp. 439-452

Chen. Z., Yan-leaung, C., Aris, S., Anita, W.S. (2005), “Ownership Concentration, Firm Performance and Dividend Policy in Hong Kong”, Pacific-Basin finance Journal, Vol.13, Pp.431-449.

Chowdhury, G. and D. K. Miles (1987), "An Empirical Model of Companies' Debt and Dividend Decisions: Evidence from Company Accounts Data ", Bank of England Discussion Paper, No. 28.

Chua, F., (1986), "Radical Developments in Accounting Thought". Accounting Review, 61: 601-632.

Code of Corporate Governance, 2002

Companies Ordinance of Pakistan, 1984

Da Silva, A. C. and Leal, R. P.C. (2003), "Corporate Governance, Market Valuation and Dividend Policy in Brazil", Coppead Working Paper Series No. 390. Available at SSRN: http://ssrn.com/abstract=477302

Dahrendorf, R., (1959), "Class and Class Conflict in Industrial Society", Stanford University Press Stanford, California.

.

Darling, P. G., 1957, "The Influence of Expectations and Liquidity on Dividend Policy", Journal of Political Economy 65, pp. 209-224.

DeAngelo, H., and L. DeAngelo (1990), "Dividend Policy and Financial Distress: An Empirical Investigation of Troubled NYSE Finns", Journal of Finance 45, pp. 1415-1431.

Dhanani, A. (2005), "Corporate dividend policy: The Views of British Financial Managers", Journal of Business Finance and Accounting, Vol. 32 Nos. 7/8, pp. 1625-72.

Doing Business in 2006 Published by World Bank Group

Doing Business in 2010 Published by World Bank Group

Dyckman, T.R., D. Philbrick, and J. Stephan, (1984), "A Comparison of Event Study Methodologies using Daily Stock Returns: A Simulation Approach," Journal of Accounting Research 22, pp. 1-33.

Easton, S. (1991), "Earnings and Dividends: Is There an Interaction Effect? ", Journal Of Business Finance and Accounting 18, pp. 255-266.

Economic Surveys (2004-09) by Ministry of Finance, Pakistan

Fama, E. F., (1965), "The Behaviour of Stock-Market Prices", The Journal of Business, Vol. 38, No. 1, pp. 34-105.

Fama, E. F., (1970), "Efficient Capital Markets: A Review of Theory and Empirical Work", Journal of Finance 25, pp. 383-420.

Fama, E.F. and Babiak, H. (1968), "Dividend policy: an empirical analysis", Journal of the American Statistical Association, Vol. 63 No. 324, pp. 1132-61.

Fama, E.F. and French, K.R. (2001), “Disappearing dividends: changing firm characteristics or lower propensity to pay?”, Journal of Financial Economics, Vol. 60 No. 1, pp. 3-43.

Federal Bureau of Statistics, Pakistan: http://www.statpak.gov.pk/fbs/

Frankfurter, G. M., Kosedag, A., Chiang, K., Collison, D., Power, D. M., Schmidt, H., So, R. and Topalov. M. (2004), “A comparative analysis of perception of dividends by financial managers”, Research in International Business and Finance, Volume 18, Issue 1, Pages 73-114

Gallhofer, S. & Haslam J. (2003), “Accounting and Emancipation: Some Critical interventions”, London: Routledge

Garg, M. C., and Verma, H. L. and Gulati, S. (1996), "Determinants of Dividend Policy in Developing Countries -A Study on Indian Textile Industry", Finance India 10, pp. 967-986.
Gill, J. and Johnson, P. (1997), “Research Methods for Managers”, PCP, London,

Gioia, D. and Pitre, E., (1990). "Multiparadigm Perspectives on Theory Building," Academy of Management Review, Vol. 15, pp. 584-602.

Glen, J. D., Kannokolias, Y., Miller, R. P. and Shah, S. (1995), "Dividend Policy and Dividend Behavior in Emerging Markets- To Pay or Not to Pay", International Finance Corporation, Discussion Paper 26.

Gordon, M. J. (1959), "Dividends, Earnings, and Stock Prices", Review of Economics and Statistics 41, pp. 99-105.

Grullon, G., and Ikenberry, D. (2000), “What Do We Know about Share Repurchases?”, Journal of Applied Corporate Finance 13, No. 1, 31-51.

Habermas, J. (1978), Knowledge and Human Interest, Heinemann, London.

Hassan, O. and Power, D.M. (2009), "The Usefulness of Accounting Information; Evidence from the Egyptian Market", Qualitative Research in Financial Markets, Vol. 1 Issue: 3, pp.125 – 141

Henry, P. B. (1999), “Stock Market Liberalization, Economic Reform, and Emerging Market Equity Prices”, Forthcoming, Journal of Finance

Hopper, T. and Powell, A. (1985), "Making Sense of Research into the Organizational and Social Aspects of Management Accounting: A Review of Its Underlying Assumptions", Journal of Management Studies, Vol. 22 No. 5, pp. 429-465.

Husain, I. (2005), “Key Issue in Managing Pakistan’s Economy”, An Inaugural Address, The Lahore Journal of Economics, Special Issue

Husain, I. (2008), “Pakistan’s Economy 1999/2000 – 2007/20008: An Objective Appraisal”, available on the website of Institute of Business Administration Karachi (www.iba.ed.pk).

Husain, I. (2009), "The Role of Politics in Pakistan's Economy", Journal of International Affairs, Vol. 63, No. 1 (Fall/Winter)

Husain, I. (2010), "Pakistan's Economic Prospects – Challenges and Opportunities", A paper presented at the Seminar on "Pakistan-China Relations in the 21st Century" held at Beijing on March, 18

Hussain, F. & Qasim, M.A. (1997), "The Pakistani Equity Market in 50 Years: A Review," The Pakistan Development Review Vol. 36(4), pages 863-872.

Hussey, J. and Hussey, R. (1997), "Business Research", London: Macmillan Press Ltd.

Ibrahim, A.A. (2005), "Corporate Governance in Pakistan: Analysis of Current Challenges and Recommendations for Future Reforms." Securities and Exchange Commission of Pakistan's Second Annual Conference on Corporate Governance at LUMS, June 3-4, 2005

Imam, M.O., Malik, M. (2007), "Firm Performance and Corporate Governance Through Ownership Structure: Evidence from Bangladesh Stock Market", International Review of Business Research Papers Vol. 3 No.4 October 2007 Pp. 88-110

International Financial Statistics 1950-2005

International Financial Statistics Year Books (1950-2008)

Iqbal, J. (2008), "Stock Market in Pakistan: An Overview" Monash University- Munich Personal RepEc Archive (MPRA)

Irfan, C.M. and Nishat, M. (2003), "Key Fundamental Factors and Long Run Stock Price Changes in an Emerging Market - A Case Study of Karachi Stock Exchange", Paper presented at PSDE Conference, Islamabad.

Jensen, M. C. (1986), "The Agency Cost of Free Cash Flow, Corporate Finance and Takeover", American Economic Review 76, pp. 323-329.

Jensen, M., and Meckling, W. (1976), "Theory of the firm: Managerial behavior, agency costs and ownership structure", Journal of Financial Economics vol.13, pp. 305-360.

Jensen, M.C. (1986), "Agency Cost Of Free Cash Flow, Corporate Finance, and Takeover" American Economic Review, Vol. 76, No. 2

Jha, P. S. (1996), "Kashmir 1947: Rival versions of history" Oxford University Press (Bombay) ISBN: 0195637666.

John, K. and Lang, L. (1991), "Insider Trading around Dividend Announcements: Theory and Evidence" Journal of Finance, 46, 1361-1390.

Kaleem, A. and Salahuddin, C. (2006), "Impact of Dividend Announcement on Common Stock Prices at Lahore Stock Exchange (Pakistan)", South Asian Journal of Management, Vol. 13 No.2

Kane, A., Lee, Y. K. and Marcus, A. (1984), "Earnings and Dividend Announcements: Is There a Corroboration Effect? ", Journal of Finance 39, pp. 1091-1099.

Kanwer, A. (2002), "The Determinants of Corporate Dividend Policies in Pakistan: An Empirical Analysis", Foundation for Business and Economic Research

Kemal, A.R., Faiz, B. and Malik, A. (2002), "Regulation, Competition, and Development: Setting a New Agenda", CRC International Workshop, 4-6 September 2002 Crawford House Lecture Theatre, University of Manchester.

Khalid, S. (2010) "Liberalization, Institutional Development and the Dividends Payout Behaviour: Evidence from Listed Firms of Pakistan", available at SSRN: http://ssrn.com/abstract=1575007

Khan, J. A. (1999), "India and West Asia: emerging markets in the liberalisation era", Sage Publications New Delhi; London

Khan, S. R. (2007), "Pakistan's Economy since 1999: Has there been real progress?", South Asia Economic Journal 8: 2 pp.317-334

Khan, T. (2005), "company dividends and ownership structure: Evidence from UK panel data", Institute of Fiscal Studies, Pp.1-19

King, M. and Roell, A. (1988), "Insider Trading", Economic Policy, vol. 7, pp. 163-193

Rasheed, A. (2008), "Historical Development", Published in Pakistan Economic Policy

Rau, P. R., Vermaelen T. (2002), "Regulation, taxes, and share repurchases in the U.K.", Journal of Business, 75, 245-282.

Kumar, R. (2005), "Research Methodology: A Step-by-Step Guide for Beginners", London: Sage

Lamba, A.S. (2005), "An Analysis of the Short- and Long-Run Relationships between South Asian and Developed Equity Markets", International Journal of Business, 10(4), pp. 384-402

Lasfer, M.A. (1995), "Ex-Day Price Behaviour: Tax or short-term Trading Effects", Journal of Finance, Vol. 50, pp. 875-897.

Laughlin, R. (1995), "Empirical Research in Accounting: Alternative Approaches and a Case for Middle Range Thinking", Accounting, Auditing and Accountability Journal, Vol. 8 No. 1, pp. 63-87.

Lee, S.K.J. (1992), "Quantitative Versus Qualitative Research Methods- Two Approaches to Organisation Studies", Asia Pacific Journal of Management Vol. 9, No 1:87-94.

Lintner, J. (1956), "Distribution of incomes of corporations among dividends, retained earnings and taxes", American Economics Review, Vol. 46 No.2, pp.97-113.

Little, I.M.D. (1962), "Higgledy Piggledy Growth", Bulletin of the Oxford University, Institute of Economics and Statistics.

Litzenberger, R.H. and Ramaswamy, K. (1979), "The effect of personal taxes and dividends on capital asset prices", Journal of Financial Economics, Vol. 7 No. 2, pp. 163-95.

Litzenberger, R.H. and Ramaswamy, K. (1982), "The effect of dividends on common stock prices: tax effects or information effects?", Journal of Finance, Vol. 37 No. 2, pp. 429-43.

Long, J. (1978), 'The Market Valuation of Cash Dividends: A Case to Consider', Journal of Financial Economics 6, pp. 235-264.

Lonie, A.A., Abeyratna, G., Power, D.M. and Sinclair, C.D. (1996), "The stock market reaction to dividend announcements: a study of complex market signals", Journal of Economic Studies, Vol. 23 No. 1, pp. 32-52.

Lukman, M. (2010), "Pakistan Foresees a Better Future", Published in the South Asian Financial Market Review 2010: A publication of the South Asian Federation of Exchanges

Mahmood, S. (2002**), "**Pakistan: Political Roots and Development, 1947-1999",

Mangi N. A. (2005), "Pakistan: After the Crash" Published in the Bloomberg Business Week on 22 April

May, T., (2005), "Social Research: Issues, Methods and Process", Berkshire: Open University Press.

Maykut, R. and Morehouse, R. (1994), "Beginning Qualitative Research: A Philosophical and Practical Guide", The Flamer Press, London.

McCluskey, T. (2006), "An Empirical Investigation of the Dividend Decison in Irish Companies", Unpublished PhD Thesis, School of Business, University of Dundee.

McCluskey, T., Burton, B.M., Power, D.M. (2007), "Evidence on the Irish financial directors' views about dividend", Qualitative Research in Accounting &Management, Vol. 4 No. 2, pp. 115-132

McCluskey, T., Burton, B.M., Power, D.M. and Sinclair, C.D. (2006), "Evidence on the Irish stock market's reaction to dividend announcements", Applied Financial Economics, Vol. 16 No. 8, pp. 617-28.

Mehmmod, A. (2002), "Islamisation of Economy in Pakistan: Past, Present and Future" Islamic Studies 41:4 pp. 675-704

Miller, M., Modigliani, F. (1961), "Dividend policy, growth, and the valuation of shares", Journal of Business, Vol. 34 No.4, pp.411-33.

Miller, M.H. and Scholes, M.S. (1982), "Dividends and taxes: some empirical evidence", Journal of Political Economy, Vol. 90 No. 6, pp. 1118-41.

Ministry of Finance, Pakistan: http://www.finance.gov.pk/

Mir, S. R. and Nishat, M (2004), "Corporate Governance Structure and Firm Performance in Pakistan- An Empirical Study." Securities and Exchange Commision of Pakistan's Second Annual Conference on Corporate Governace, at LUMS, June 3-4, 2005

Mirza, K. A. (1993), "Pakistan: A Small Market with Potential" In the book of The World's Emerging Stock Market- Structure, Development, Regulations and Opportunities. By Park, Keith, and Antoine W. Van Agtmael, by Probus Publishing Company, Chicago).

Mollah, A.S. (2001), "Dividend Policy and Behaviour, and Security Price Reaction to The Announcement of Dividends in an Emerging Market - A Study of Companies Listed on the Dhaka Stock Exchange", Unpublished PhD thesis, Leeds University Business School, University of Leeds.

Mollah, S., Keasey, K. and Short, H. (2002), "The Influence of Agency Costs onDividend Policy in an Emerging Market: Evidence from the Dhaka Stock Exchange, Working Paper www.bath.ac.uk.

Morse, D., (1984), "An Econometric Analysis of the Choice of Daily versus Monthly Returns in Test of Information Content", Journal of Accounting Research, Vol. 22, No. 2, pp. 605 - 623.

Mubarik. F, (2008), "The Impact of Dividend Announcement on Share Price of Oil and Gas Marketing Sector of Pakistan" NUML Journal of Management and Technology, Vol. 2, No. 2 pp. 7-13.

Mustafa, K. and Nishat, M. (2007), "Testing for Market Efficiency in Emerging Markets: A Case Study of the Karachi Stock Market" The Lahore Journal of Economics, 12 : 1 (Summer) pp. 119-140

Naeem, S. and Nasr, M. (2007), "Dividend policy of Pakistani Firms; Trends and Determinants", International Review of Business Research Papers, Vol. 3 No.3 pp. 242-254.

Narayan, P., Smyth, R., and Nandha, M. (2004), "Interdependence and Dynamic Linkages Between the Emerging Stock Markets of South Asia", Accounting and Finance 44, pp. 419-439

Neuman, W. (2000), "Social Research Methods: Qualitative and quantitative approaches", Needham Heights: Allyn & Bacon

Nishat, M. (1992), “Share Prices, Dividend and Retained Earnings Behaviour in Pakistan Stock Market", Indian Journal of Economics, Vol. 10(2), p 23-27

Nishat, M. (1996), “Determinants of Stock Prices in Pakistan”, International Journal of Development Banking, Vol. 13(2), pp. 37-42

Nishat, M. and Bilgrami, N. (1994), “Who pays dividend - A firm-wise analysis of companies registered with Karachi Stock Exchange", Savings and Development, Vol. 18(3), p 335-343.

Nishat, M. and Irfan, C.M. (2001), “Dividend policy and stock price volatility in Pakistan.” Paper Presented at 19th Annual General Meeting of PSDE, Pakistan Institute of Development Economics, Pakistan.

Pettit, R. (1972), "Dividend announcements, security performance and capital market efficiency", Journal of Finance, Vol. 27 pp.993-1007.

Poterba, J. M. (1986), "The Market Valuation of Cash Dividends", Journal of Financial Economics 15, pp. 395-405.

Poterba, J. M., and L. H. Summers (1984), "New Evidence That Taxes Affect the Valuation of Dividends", Journal of Finance 39, pp. 1397-1415.

Poterba, J.M. and Summers, L.H. (1984), “New evidence that taxes affect the valuation of dividends” The Journal of Finance, Vol. 39, No. 5, pp. 1397-1415

Rasheed, A. (2008), “Historical Development”, Published in Pakistan Economic Policy

Rau, P. R., Vermaelen T. (2002), “Regulation, taxes, and share repurchases in the U.K.”, Journal of Business, 75, 245-282.

Rennack, D. E. (2001), “India and Pakistan: Current U.S. Economic Sanctions.” Congressional Research Service, The library of Congress (October).

Rishma, V., Rafiqul, B. Rahman, Z. (2007), “Impact of dividend announcement over shareholders' wealth: a case of emerging stock market of Bangladesh”, Journal of International Finance and Economics

Rishma, V., Bhuyan, R., and Zahedur, R. (2007), “Impact of Dividend Announcement over Shareholders’ Wealth: A Case of Emerging Stock Market of Bangladesh”, Journal of International Finance and Economics, Vol. January

Ryan, B., Scapens, R. and Theobald, M., (2002), “Research Method and Methodology in Finance and Accounting”, London: Thomson.

Saunders, M., Lewis, P. and Thornhill, A., (2007), “Research Methods for Business Students”, Prentice Hall.

Schwert. G. W. (1983), "Size and Stock Returns and Other Empirical Regularities", Journal of Financial Economics, 12, 3-12.

Sekaran, U. (2002), "Research Methods for Business: A Skill-Building Approach" International Edition

Shahab, Q. (1986), "Shahab Nama", Sang-e-Meel Publications, Lahore (Edition 2005)

Shaheen, R. and Nishat, M. (2005), "Corporate Governance and firm performance- An exploratory Analysis." Securities and Exchange Commission of Pakistan's Second Annual Conference on Corporate Governance, at LUMS, June 3-4, 2005

Siddiqui, S. H. (2006), "KARACHI: Stock Market Crash: Large-Scale Cover-Up Alleged" Published on 26th November in the Dawn Newspaper.

Soter, D., Brigham, E. and Evanson, P. (1996), "The dividend cut heard around the world: The Case of FPL", Journal of Applied Corporate Finance, Vol. 9(1), pp. 4-15.

Standard & Poor's Global Stock Markets Factbook, 2009

Strong, N. (1992), "Modelling Abnormal Returns: A Review Article", Journal of Business Finance and Accounting, 19, 533–53.

Taylor, S.J. and Bogdan, R. (1984), "Introduction to Qualitative Research Methods", Wiley, New York.

The Central Depository Company of Pakistan (CDC) http://www.cdcpakistan.com/

The Islamabad Stock Exchange, Pakistan: www.ise.com.pk

The Karachi Stock Exchange, Pakistan: www.kse.com.pk

The Lahore Stock Exchange, Pakistan: www.lse.com.pk

The National Clearing Company of Pakistan Limited (NCCPL). http://www.nccpl.com.pk/

The Pakistan Institute of Corporate Governance (PICG): www.picg.gov.pk

The Securities and Exchange Commission of Pakistan: www.secp.gov.pk

The State Bank of Pakistan: www.sbp.org.pk

Thirumalvalavan, P., and Sunitha, K. (2006), "Share Price Behaviour around Buy Back and Dividend Announcements in India", Available on: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=873986

Tijjani, B. (2008), "An Empirical Investigation of the Equity Investment and Share Valuation Process in Nigeria", Unpublished PhD Thesis, School of Accounting and Finance, University of Dundee, UK

Truong, T., and Heaney, R. (2007), "Largest Shareholder and Dividend Policy around the World", The Quarterly Review of Economics and Finance. Vol. 47 pp. 667–687

Uddin, M. H. (2003), "Effect of Dividend Announcement on Shareholders' Value: Evidence from Dhaka Stock Exchange", Global Corporate Governance Forum (Sponsored by World Bank), 13-16 December, Hyderabad, (INDIA)

Watt, R. and R. Leftwich (1977), "The Time Series Properties of Annual Accounting Earnings", Journal of Accounting Research 15.

Watts, R. (1973), "The Information Contents of Dividend", Journal of Business 46, pp. 191-211.

Woolridge, J.R. and Ghosh, C. (1985), "Dividend cuts: Do they always signal bad news?" Midland Corporate Finance Journal, Vol. 3(2), pp. 20-32.

World Economic Indicators (1960-2010) published by Work Bank

Zagham, S. A (2008), "The Role of SECP in Regulating the Capital Markets in Pakistan" available on http://www.scribd.com/doc/50450719/The-Role-of-SECP-in-regulating-capital-markets

Zaman, F. (2007), "Effect of company related news and events on its stock prices research conducted on top six companies listed at Karachi Stock Exchange" http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1019179